



Own-brand mobile phones: The case of Vodafone Portugal

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“Once just a telephone, a handset is becoming an extension of its owner’s personality”

The future of the mobile handset – BCG, 2005

Abstract

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Handsets portfolio plays a crucial role in operators' differentiation strategy. Nonetheless it is increasingly harder for operators to differentiate their portfolios since manufactures are less available to negotiate exclusivity agreements. Moreover, the market is dominated by few giants, like Samsung, Apple and Nokia, which reduces operators' negotiation power with manufacturers.

Literature suggests that Private Label market power is lower in categories with more innovation and higher technology costs associated. Still, own-brand handsets are a common practice by major operators in European countries. Particularly, Vodafone has an own-brand handsets program, in force since 2006, making them available in its subsidiaries, namely in Portugal and other partner markets.

The main purpose of this research is to understand the strategy regarding own-brand mobile phones of the operator with the most valuable telecoms brand in the world – Vodafone. Moreover, it aims to comprehend the impact of own-brand handsets on consumer buying behavior.

It was concluded that own-brands can effectively contribute to differentiate operators' portfolio and to boost bargaining power with manufacturers. Moreover, concerning the consumers' perspective, the market study performed revealed that the willingness to buy own-brand handsets is higher in low-end mobile phones. The study also suggested that there is a gap between consumers' predisposition to buy own-brand handsets and its actual purchase.

Sumário

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O portfólio de equipamentos desempenha um papel essencial na estratégia de diferenciação das operadoras de telecomunicações. No entanto, os fabricantes de telemóveis estão cada vez menos recetivos para negociar contratos de exclusividade o que dificulta a diferenciação do portfólio. Adicionalmente, o mercado é dominado por poucos fabricantes de grandes dimensões, como a Samsung, Apple e Nokia, o que reduz o poder de negociação das operadoras.

A literatura sugere que o poder de mercado das marcas próprias é menor em categorias com mais inovação e com elevados custos tecnológicos associados. Ainda assim, oferecer equipamentos de marca própria é uma prática comum das principais operadoras Europeias. Em particular, a Vodafone tem um programa de equipamentos de marca própria em vigor desde 2006 disponibilizando estes equipamentos às suas subsidiárias, nomeadamente em Portugal e a outros mercados parceiros.

O principal objetivo deste estudo é perceber a estratégia de equipamentos de marca própria do operador com a marca de telecomunicações mais valiosa do mundo – a Vodafone. Adicionalmente, o estudo visa entender o impacto destes equipamentos no consumidor.

Concluiu-se que os equipamentos de marca própria contribuem efetivamente para diferenciar o portfólio das operadoras e aumentar o seu poder de negociação junto dos fabricantes. Adicionalmente, o estudo sugere (i) que a recetividade para comprar equipamentos de marca própria é maior na baixa gama e (ii) a existência de uma discrepância entre a predisposição dos consumidores para comprar equipamentos de marca própria e a sua compra efetiva.

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1. Introduction

1.1 Background and relevance of the study

Private labels (PLs) are becoming more popular amongst European buyers. In volume terms, PL's market share has increased in almost every European country. In Portugal, PL's market share has increased 11% in volume over the last 3 years. In 2012, with a 43% market share in volume, Portugal was the fourth country in Europe with higher PL's share whereas Switzerland was the leader with a 53% market share¹.

Concerning the telecommunications market, handsets sold under operators' own brand name is a common practice within major operators worldwide. The Portuguese telecommunication market is not an exception on that matter.

In Europe, the pioneer in own-branding handsets was the mobile communications brand of France Télécom, Orange - one of the world's leading telecom operators. With a strong and successful own-brand device strategy, in 2011 Orange's own-brand portfolio has doubled from 7% to 15% in volume terms of its total device portfolio, value that the company estimates to increase to 20% in 2012.²

Particularly in Portugal, the three main mobile service players – TMN, Vodafone and Optimus have own-brand handsets in their portfolio representing circa 13% to 18%³ of each operator portfolio. According to the IDC European Mobile Phone Tracker, Vodafone (as a handset brand) occupied the third place in terms of handsets sales volume in the Portuguese market in the 2010-2011 period, only after Samsung and Nokia. In a market highly polarized between these two giants, Vodafone represented 8% of the total sales in 2011, while Samsung and Nokia represented 35% and 31%, respectively.

Nonetheless, PL's market share varies across sectors and product categories (Bergès-Sennou, Bontems and Réquillart, 2004). Evidences suggest that PLs tend to be more successful in products where the level of processing is low and technology is cheap (Hoch and Banerji, 1993) and in categories with a lower degree of differentiation. The telecommunication sector is all but that. It is one of the most innovative and dynamic sectors worldwide, where new handsets with new features are continuously

¹ www.plmaininternational.com

² Orange Press Release, 27th February 2012

³ Percentages calculated according to all available models in each operator website in November 2012.

being launched to the market. Additionally, the handset is not anymore just a tool for text message and calls, it is also an extension of its owner personality, and consequently the owner typically demonstrates a high involvement with it.

On the other hand, in most cases own-brand handsets are produced by Original Design Manufacturers (ODM), who produce not only their products but also PL's products. ZTE, Huawei, Alcatel are some examples of ODMs.

In this context, at the first look PLs should not have success in the mobile phone industry. But if so, why do mobile services operators invest on PLs? Why don't they simply sell them under ODM brands? What is the strategy behind own-brand handsets? What is the impact on consumers?

This study is relevant for the academic world given that, despite the vast literature about PLs in fast moving consumer goods (FMCG), there is a lack of studies on PLs in the telecommunication sector. Moreover this study is more focused on Vodafone's reality, one of the world's largest mobile telecommunications companies by revenues, owner of the most valuable telecoms brand in the world according to Brand Finance and with a strong own-brand handsets' strategy since 2006.

On the managerial side, this research can be useful for retailers and manufacturers, since it partially provides the consumers' insight about own-brand handsets, which can ease the decision making process for both parties.

1.2 Problem statement and research questions

The aim of this dissertation is to understand Vodafone's handset portfolio strategy regarding own-brand mobile phones and its impact on the consumer buying behavior.

In order to solve this problem statement this dissertation is focused on the following key research questions:

1) What is Vodafone's global handset portfolio strategy?

The purpose of this question is to understand the main goals behind handset portfolio strategy. In order to do so, a brief context of the telecommunication sector is presented along with the main trends of the sector. Vodafone, as a company and as a brand is also described for this purpose.

2) Why does Vodafone integrate own-brand handsets in its portfolio? What is the company's marketing strategy regarding these handsets?

The major point of this question is to comprehend the main reasons behind Vodafone's introduction of PLs. Moreover, it aims to find out the company's marketing strategy behind PLs and how it is integrated in Vodafone's global portfolio strategy. Namely how does the company position PL's handsets in the market, which segments are targeted by this offer and what are the main strategies to address the new trends.

3) How do Vodafone's main competitors (Optimus and TMN) behave regarding own-brand handsets?

It is also important to compare Vodafone-branded handsets portfolio with its main competitors. For that matter, a benchmark between the three operators is presented as well as the main conclusions concerning PL's handsets positioning of each operator.

4) How do consumers perceive own-brand handsets? What is PL's handsets effect on consumer decision making process?

Regarding consumers' perspective, the goal is to understand the main (dis)advantages perceived on buying own-brand handsets and the main factors influencing the buying behavior. Additionally, it also aims to comprehend the likelihood of buying these handsets and understand whether it varies according to (i) handset gamma, (ii) brands and (iii) price.

1.3 Methodology

In order to build the case study, the methodology used consisted in the use of both primary and secondary data.

The primary data consisted on interviews with Vodafone's key staff from the Consumer Marketing Unit and the Logistics Unit. To complement the case study with the consumer's perspective, an online survey was performed to mobile services customers.

As secondary data it was used information provided by Vodafone, including brochures and market studies developed, as well as other studies and publications from recognized entities' in the telecommunication sector, such as ANACOM, IDC, Marktest, TMN and Optimus.

1.4 Dissertation structure

This dissertation is structured in six chapters. The first one is the current chapter. In chapter 2, an analysis of the relevant literature was performed in order to contextualize PLs in some important marketing topics as well as the decision making process regarding mobile handsets. In chapter 3, it is presented a case study focused on Vodafone's general portfolio strategy and how own-brand handsets fit on it. Chapter 4 presents the data collected from the survey performed to customers in order to understand their perspective on the issue. Chapter 5 summarizes the main conclusions and recommendations, pointing out the limitations of the study and giving path for future research. Finally, chapters 6 and 7 present, respectively, the exhibits and the teaching notes.

2. Literature review

2.1.Mobile Phones

Mobile Phones have had one of the fastest household adoption rates of any technology in the world's modern history (Comer and Wikle, 2008). They are becoming indispensable to people's lives.

There are three sub-categories of mobile phones: basic phones – the most commonly used phones – mostly used for making calls and short text messaging services (SMS) and may support constrained browsing (Subramanian cited in Min et al, 2012); smartphones, that provide a superior entertainment experience as these support more advance functionalities somehow closer to the ones existing in a computer, and are mainly differentiated from basic phones by the operating system (OS) such as Windows Phone, iOS, Symbian and Android (Vodafone shop, 2011); and finally feature phones – typically a low-end mobile device with less features than a smartphone, but more advanced than a basic phone.

From the academic perspective there is a general lack of studies on the mobile phone market and the main factors affecting the consumer decision making process. On a corporate level point of view, several are the studies on these issues conducted by mobile phone manufacturers, Operating System (OS) developers and operators; however they are not made available to third parties. One fact that turns this task more difficult is the severe competition existing in this industry. Given the high levels of innovation technology-wise, market position can change in a very short period of time (comScore, 2012). Considering the context described above, this section was truly challenging and selecting recent studies concerning mobile phones was a concern.

2.1.1. Market overview

The European mobile phone market reached a value of \$29.6 billion and a volume of 287.8 million units in 2011, which represented a growth of 0.1% and 0.8%, respectively (MarketLine, 2012). The increasing purchasing power in developing countries and higher demand from these markets has created fiercer competition in the mobile market which in turn is driving down prices contributing to the worldwide boom of the industry. Additionally, the repurchase rates are increasing and penetration rates are exceeding 100% in many markets worldwide. (Kımlıoglu, Nasir and Nasir, 2010). According to the 2011 European Mobile Industry Observatory, mobile prices fell by an average of 11-13% per year from 2006 to 2010 in the EU. Still, usage growth resulting from prices decrease enabled the mobile industry to present a 9% CAGR in revenues from 2000 to 2008. In 2009, revenues suffered a

major setback of approximately 3% partially due to global recession whereas in 2010, revenues remained relatively flat. With the deteriorating economic conditions of several markets it is expected that mobile operators' revenues will continue to be pressured.

The mobile phone market is also characterized by the variety of acting players. From network operators to retailers and mobile phone manufacturers, one must also consider other entities such as specific technology developers, equipment and parts manufacturers as key suppliers of this industry.

Regarding network operators and retailers, they tend to be large-sized companies which could mean higher bargaining power; however, considering the size of mobile phone manufactures such as Samsung, Nokia or Apple may limit this advantage. Considering this, and looking closer to the specific case of smartphones, given the popularity and fast pace of technological development of these handsets, most operators have to stock the latest models to meet end-user demand, and therefore ending up in a weaker position near manufacturers. One trend of the market is that both operators and retailers are open to exclusive deals with manufacturers (MarketLine, 2012).

On the suppliers' point of view, they may vary from technology, equipment or parts for manufacturers. Considering that some of the technology may often be highly specialized and that some parts may be unique to a certain manufacturers, suppliers may face high levels of dependency to larger-scale manufacturers (MarketLine, 2012).

The growth of smartphones within the industry may open space for new entrants in the market; however, the high levels of capital needed along with the necessary scale economies needed to compete with incumbents may pose a major threat to new players if we also consider the strict regulation in terms of health and safety of users. (MarketLine, 2012).

Generally speaking, mobile phones as a device face low levels of substitution threat as these are equipments that combine in a single equipment several functionalities offered by other standalone equipments like camera, internet access, GPS, alarm, and calculator. Additionally, in terms of value for money, it is considerably cheaper to buy a mobile phone than standalone gadgets to substitute all the above functions outlined (MarketLine, 2012). According to a 2012 Deloitte study, the high levels of uncertainty regarding the future are making Portuguese consumers increasingly aware of purchasing options. Often consumers choose products which, although more expensive, are more functional and versatile, incorporating the features of several other consumer electronics products. This is boosting sales of smartphones.

Smartphones have also created a whole new level of competitive dimension in the Industry. The introduction of OS such as iOS (Apple) and Android (used by HTC, LG, Samsung and Sony for instance) has put these players in the top in terms of mobile phones distributors. On the other hand, Motorola and Nokia we're deeply penalized by the market for not being able to keep the pace of innovative smartphones. Several are the studies that point out Nokia, Samsung and Apple as the leading companies in Europe (Exhibit 1). Last but not least, operators have also started to offer mobile phones under their own brand which has created and even higher pressure on mobile phone manufacturers to build a stronger brand image and innovative products at a faster pace than ever (MarketLine, 2012).

The battle between Original Equipment Manufacturers (OEMs) continues to intensify, especially amongst smartphone makers as partnerships with OS developers (Exhibit 2) and operators are becoming ever-more strategically important nowadays (comScore, 2012). Android and iOS (Apple) are leading the way in consumer future purchase consideration and have demonstrated high levels of customer satisfaction as most users are considering a repurchase (GFK, 2010 and CFI Group, 2009). Nokia and Research in Motion (RIM) are facing some challenges, struggling to maintain and increase their market shares (GFK, 2010).

2.1.2. Smartphone proliferation

Tseng and Lo (2011) stated that technology-based products have a more distinctively brief lifecycle when compared with other durable goods. As such those consumers who desire for upgrades will more easily be attracted by next generation products and consequently older model mobile phones are more rapidly replaced by newer models with augmented functions.

ComScore (2012) study has detected that nowadays consumers are more prone to shift their preferences from a basic phone to a smartphone. Smartphone penetration is increasing in developing countries at a fast pace. In countries such as Germany and France, smartphone sales have surpassed feature phones to account for the majority of new device purchases for the first time during 2011. The proliferation of 3G and 4G networks has been a key factor for accelerating smartphone adoption across these markets. Additionally, innovations in device functionality and applications along with aggressive pricing strategies from distributors have influenced the fast pace of smartphone adoption.

While the newest models of many high-demand smartphones continue to have higher price points, earlier models are increasingly being offered to consumers at very low costs – or in some cases, for free – given a contractual loyalty program. ComScore (2012) study suggests that as smartphones

become more accessible to an increasing segment of the market, adoption rates are expected to accelerate even more.

Smartphone target

Once the dominion of business users, personal consumers are adopting smartphones in large numbers. iPhone is largely credited for fostering consumer interest in smartphones, in an attempt from customers to use them more like mini-computers than mobile phones. Additionally, attending the affordable prices smartphones are being offered nowadays, new users with lower income are being able to adopt this new trend. CFI Group (2009) reported that while early smartphone adopters were mostly business users seeking email and calendar functions, the new smartphone users, representing the future trend of smartphone adopters, are mostly attracted by consumer-oriented functions and applications ending up being more likely to use their phone for personal reasons than for business matters.

ComScore (2012) study identified the profile for smartphones users⁴. iPhone users buy it specifically to get the benefits of owning a smartphone. The same study also suggests that iPhone users are more passionate by their phones and are also more satisfied. On the other hand, generic smartphone users are more likely to get a smartphone by inertia – on a contract renewal or promotional offer for instance.

Although smartphones are presenting fast paced rates of adoptions amongst mainstream consumer segments; it is possible to outline some segments to whom smartphones are more popular. In the same study, comScore (2012) shows that in the EU5⁵ markets, there is a higher acceptance of smartphones by male users (55.7%). Furthermore, 25-34 year olds comprise the largest proportion of the respective market, followed by 35-44 year olds (Exhibit 3). Finally, the comScore (2012) study suggests that the smartphone market has not yet fully matured as many demographic segments aren't totally penetrated.

2.1.3. Determinants that favor the acquisition of mobile phones

Smartphone sales are boosting but what is driving the market to this rapidly increasing buying trend? According to Min et al. (2012), the factors affecting consumer demand of smartphones (and mobile phones more generally) are complex in nature and usually no single factor or simple reason can be pointed.

⁴ The study separated iPhone users from non-iPhone users, since the “iPhone deserves its public accolades; customers love it”, it is in a strong position on customer satisfaction and loyalty. According to CFI Group report 92% of consumers stated it was the ideal mobile phone.

⁵ EU5 includes the UK, Germany, France, Italy and Spain

Additionally, Karjaluoto et al. (2005) suggest that mobile phone buying decision process is driven by a set of complex and numerous factors, including both macro and microeconomic conditions affecting the evolution of mobile phone market on one hand and on the other, the individual consumer's motives. These factors are critical for operators, OEMs and OS developers to understand considering this rapidly developing and increasingly competitive market. (comScore 2012).

For Peaw and Mustafa (n.a.) the identification of the best-buy among smartphones is often time-consuming and confusing - in the U.S. alone, there were more than 400 smartphone devices on the market at the end of 2011, according to comScore (2012). The process of searching acquiring and gathering information of the product is costly; at least in time spent, customers usually base their purchasing decision in how they perceive the quality of a product or brand name, making marketing activities more effective (Zeithaml, 1988). Kahn and Sarin cited in Turnbull, Leek and Ying (2000) found that consumers not only consider ambiguity in making decisions under uncertainty, but that they are willing to pay a premium to avoid it. On that basis, brands assure consumer products quality as they reduce consumers risk since they are likely to have lower variance in product quality according to Montgomery and Wernerfelt (1992). Therefore mobile phones should build up a strong brand image (Turnbull et al, 2000).

The attributes being considered to buy a mobile phone always vary from one potential buyer to another. Some may only consider the price, whilst some may focus on its color, display, size, design, brand, etc. (Peaw and Mustafa, n.a.). Nevertheless, Karjaluoto et al (2005) study showed that although the choice of a mobile phone is subjective, there are some general factors that seem to guide the choice. Technical problems are the basic reason to change mobile phone; however, price, brand, interface, and properties are considered the most influential factors affecting the actual choice between brands.

GfK (2010) research evidences that consumers no longer buy smartphones based on their features and functionalities, owners in key global⁶ markets are buying the 'experiences' created by the mobile ecosystem (OS, integrated services, easy to customize etc.) and the majority (56%) are 'keeping their options open', when deciding their next smartphone purchase.

ComScore study (2012)⁷ suggests that the cost of monthly service and the network quality are still the most important factors when making a purchase decision for both the smartphone market and the total mobile market. As for the total mobile market, price is the third most important factor followed by, in

⁶ Global in this instance includes Brazil, Germany, Spain, UK and USA.

⁷ The study was conducted in UK, France, Germany, Italy and Spain.

ex aequo, data plan cost and OS. The available apps, music and video capabilities are less influencing factors and finally comes the mobile phone brand as the least important attribute (Exhibit 4).

Despite being shown in the comScore (2012) study that brand is the least important attribute, the 2009 CFI Group study reports that consumers who upgraded to OEM brand smartphones and smartphone platforms have higher satisfaction. The study also suggest that the most satisfying smartphones offer consumer-oriented functionalities: better web browsing experience, easier multimedia playback, and a fullness of applications that produce higher satisfaction.

Corroborating these studies Kimiloglu et al (2010) evidences that (i) technological compatibility and connectivity (such as internet and computer connection, music and camera functions, and recording capabilities), (ii) price attractiveness and payment condition, (iii) brand image, (iv) physical features, and (v) practicality and durability are important factors in the buying decision. Nonetheless, the authors suggest that other factors such as the stimulation of social desirability and impressiveness induced by advertising, reference group and/or celebrity influence, media reviews, awards and the positioning of the product as a luxurious item also appears as a unique factor that plays an important role in a purchase. On the other hand both expertise and service quality of the vendor company (Kimiloglu et al, 2010) and the word of mouth – “one of the most credible and reliable source of information” – (CFI Group, 2009) are considered key drivers for purchase intention, even more important to first time buyers.

2.2.Private labels

Consumers want brands for the quality assurance and emotional satisfaction. However, brands do not necessary have to be manufacturer's brands. They can also be store brands (Kumar and Steenkamp, 2007). Store brands, also designated as PLs or own-brands can be defined as products over which retailers have exclusive rights and that are exclusively sold by them (Private Label Manufacturers' Association) and other distribution chain members (Narasimhan and Wilcox, 1998). PLs are marketed under a retailer's brand. That brand can be the retailers own name or a name created exclusively by the retailer.

This suggest that, PLs are owned and controlled by a retailer whereas before these activities where performed by the manufacturer (Quelch and Harding, 1996).

Some studies suggest that modern PLs mean more to consumers than simply low-prices (Oxera, 2010), and they are increasingly imbued with emotion and imaginary rather than only functional logic that dominated private labels a decade ago (Kumar and Steenkamp, 2007).

Academic studies are mainly focused on PLs in the FMCG. However, PLs are not limited to it. PLs penetration varies from sector to sector. Clothing retailers and Home improvement and DIY stores have a high penetration of own-brands. Grocery retailing and over the counter pharmaceuticals typically have a mix of both PLs and National Brands (NBs). While in perfumes and electrical retailers own-brands are rare. In these last sectors some very large chains of electrical retailers and telecommunication operators have low price owns-brands, but well-known brands are the key to the success (Oxera, 2010). Nonetheless, even if PLs have in general low penetration in a category, a specific retailer can create a successful program within the category (Hoch and Banerji, 1993).

The following subsection reviews the available literature in PLs concerning the reasons why retailers are investing on their own-brands and the factors that may influence PLs performance in the market.

2.2.1. Reasons for retailers to introduce PLs

Retailer's profitability

If retailers spend their resources on the development of PLs, it has to bring them some advantages; otherwise it would be irrational to do it (Hoch and Banerji, 1993). Most authors agree that introducing PLs contribute to increase retailers' margins in both PLs and NBs (Ailawadi and Harlam, 2004). Firstly, in most cases, the retailer gross margins on PL product are higher than in NB product (Quelch and Harding, 1996; Hoch and Banerji, 1993) and secondly, by introducing PLs, the retailer is leveraging its bargaining power with the manufacturer as explained further in the literature review.

In fact, PL implies a closer contract/relationship between retailers and suppliers to build products according to consumers' demands. Therefore it can facilitate retailers negotiation of better terms by reducing supplier costs as it provides scale efficiency and avoids brand developments costs, and reducing input prices, namely to the improved bargaining power from both own-brands and branded suppliers (Oxera, 2010).

Differentiation

The range of products needs to be as wide as possible to allow discrimination among consumers. However, each firm's products need to be differentiated to reduce the impact of price competition and PL can confer a significant measure of exclusivity to their retailer. (Hoch and Banerji, 1993).

In fact, PLs are specific to each retailer. So the introducing of PL allows retailers to differentiate their offer from their rivals, especially in sectors where exclusive sales agreements are infrequent. In these sectors all retailers can offer the same NBs but none can offer the same PLs (Hoch and Banerji, 1993).

Loyalty

Consumers who buy PLs of a given retailer are likely to build some retailer loyalty, whereas consumers who buy no PLs at all have no such loyalty (Ailawadi, Pauwels and Steenkamp, 2008). However, for PLs to be present among consumers' reasons for store loyalty, they should have a strong reputation and develop strong added value to consumers (Kapferer, 2008).

Despite that, it is not linear if consumers are loyal to PLs in general, but not to the product of a specific retailer in particular (Richardson, 1997). Moreover, the equilibrium between PLs and NBs is crucial to attract and retain profitable clients and who buy some PL items but not too many (Ailawadi and Harlam, 2004).

Regarding the telecommunication sector, handsets portfolio differentiation namely through PL is important to attract and retain clients, however, other factors such as friends and family, operator, network coverage/quality and price have a higher impact in attracting and retaining clients (Barómetro de telecomunicações).

Retailer's negotiation leverage in the relationship with manufacturers

The value that NBs add to the retailer is a key determinant in retailers and manufacturers negotiation; the greater the incremental sales the brand brings, the better its manufacturer will do in negotiation with the retailer (Morton et al, 2004). By introducing a PL, the retailer becomes a competitor with its supplier (Bergès-Sennou et al, 2004) and will become less dependent on NBs, thus manufacturers negotiation power will decrease (Sayman, Hoch and Raju, 2002).

With lower input prices, own-brands can improve retailers bargaining power and increase competition which forces branded alternatives to compete more vigorously in terms of offering higher quality, increase levels of innovation and lower prices (Oxera, 2010). Some authors argue that the most important result from the threat of a PL entry or its actual introduction is the possible decrease on NBs wholesale price. The higher PL quality, the greater the price decrease. (Bergès-Sennou et al 2004).

2.2.2. Factors that favor PLs performance in the market

The previous subsection explained why retailers are investing on their own-brands. However, it takes more than investments to be successful. Thus, below are analysed some factors that may influence PLs performance in the market.

Competition in a category

As well as varying by sector, PLs penetration varies between product categories and within a given category it varies with the product (Bergès-Sennou et al, 2004). In some categories consumers are more receptive to buy PL. However, in categories where consumers prefer NBs, or where NBs compete successfully and innovate to maintain their position, the share of PL remains low (Oxera, 2010).

There is evidence that the number of NBs actually sold by the retailer has a negative impact on PLs' market share. The larger the number of products in a specific market, the lower the market share of each. (Bergès-Sennou et al, 2004). Product variety as well as strong manufacturers' brands also acts as barriers to entry, since it is harder to a new product to gain significant market share.

Degree of differentiation

Evidences suggest that PL are bought for functional reasons (Kumar and Seenkamp, 2007) and tend to be more successful in categories with lower degree of differentiation, as for example laundry detergents (Hoch and Banerji, 1993). Therefore, ideally PLs should be introduced in concentrated markets, characterized by less heterogeneity in tastes and offer an attractive alternative at a lower price. (Dhar and Hoch, 1997).

There is not a standard formula to compete with NBs. Nonetheless, in a given category, if NBs are differentiated from each other, than PLs should have a similar position to one of the existing NBs and if not, PLs should differentiate themselves from NBs (Choi and Coughlan, 2006)

Quality

The price-quality relationship compared with NBs is another factor that influences PLs success (Dhar and Hoch, 1997).

In the past, traditional wisdom defended that PLs should offer acceptable quality relative to NBs, but they should emphasise price. Thus, there was a distinctive gap between PLs and NBs quality. Recently, however the gap has narrowed, since some retailers have been emphasizing quality over

price, which according to some authors is the key to success rather than price (Hoch and Banerji, 1993) and the factor that has led to the growing acceptance of PL.

Retailers have a particularly strong incentive to guarantee product quality across all of their PL products, due to the potential negative spill over and damage to the brand it might cause if quality standards are not met (Oxera, 2010). Moreover, retailers should position PLs on reasonable quality, not just on low-price, because gaining to compete heavily in price erodes store brand margin advantage (Ailawadi and Harlam, 2004).

On the other hand, the uncertainty about PL's quality is a key consumer concern when considering switching to a PL (Corstjens and Lal, 2000). PL often suffers from an unfavourable gap between actual and perceived PL quality, and it can be difficult for retailers to convince consumers of their quality (Ailawadi et al, 2008): Consumers generally perceive PLs as being of lower quality, or at least no higher than NBs. That can be partially explained due to NBs extensively advertise (Bergès-Sennou et al, 2004) and to their emotional factor (Steiner, 2004). This situation is aggravated in products that require a higher level of consumers' confidence; in which PL success tend to be lower (Bergès-Sennou et al, 2004).

The actual experience with the product might be important for consumer to realise that the actual PL's quality exceeds their previous expectations (Geyskens, Steenkamp and Kumar, 2006). In fact studies show that for consumers who frequently buy PLs consider the price-quality ratio as being the main advantage of these products. And if consumers have a positive experience with PLs, it is expected that some customers will not switch back to NBs (Steiner, 2004).

Consumers are more receptive to buy PL over a NB if its quality is higher. (Hoch and Banerji, 1993). Since today there is an increasing number of PL available on stores at good quality levels, customers will no longer have negative stigma and will become more willing to purchase them (Steiner, 2004).

If NBs have a comparable quality to PLs, the consumer will prefer NBs. Otherwise, the retailer can position the PL as an inferior good and position it against the weaker NBs (Sayman et al, 2002) and strong NBs will continue to target their quality-conscious consumer segments and introducing new products varieties (Pauwels and Srinivasan, 2004).

Price

PL market share market share in volume is consistently higher than the market share in value. (Bergès-Sennou et al 2004). This evidences that PLs are offered at substantial lower prices than NBs.

Consumers' buying behaviour varies according to brands' price level. They tend to interpret higher prices with higher quality, and low prices are perceived as an indicator of inferior quality (Dhar and Horch, 1997; Ailawadi et al, 2008). High-priced brands are frequently purchased for their image and consumers are willing to pay a premium for their perceived high quality and status. (Bolton, 1989). Whereas, low-priced brands usually are purchased for utilitarian reasons and consumers will look for the best value. They typically target low price of these brands or substitutes (Swani and Yoo, 2010).

Several authors have studied the relationship between PLs prices and NBs prices. Some authors defend that the larger the price differential between PLs and NBs, the lower PLs share. One possible explanation is the fact that consumers associate price with quality and perceive PL as of poorer quality if the differential in prices is large (Dhar and Horch, 1997; Ailawadi et al, 2008). Nevertheless, the effect of PLs quality may be moderated by price. In some categories, where consumers are particularly price sensitive, consumers might be willing to exchange quality for price, such that given quality standards are met (Hoch and Banerji 1993). However the authors study does not support that consumers buy PLs merely because they are cheap. If consumers are interested in quality, PLs should be positioned as offering similar quality to NBs.

Regarding price cuts, some authors argue that NBs price cuts are more effective in stealing share from PLs (Cotteril, Putsis and Dhar, 2000) and that is more likely that PLs follow the price of NBs than the other way around (Putsis, 1997).

Advertising

Manufactures strongly invest on advertising since it plays a vital competitive role in establishing brand preferences among consumers and in differentiating brands from lower price threats. However, in general, retailers can hardly match the advertising level of manufacturers.

It is proved that advertising is positively correlated with NBs share and negatively correlated with PLs market share (Steiner, 2004). PLs have more difficult to penetrate and achieve satisfactory market shares in categories dominated by leading advertised brands, so retailers often respond with price as a strategic weapon (Cotteril et al, 2000). As such PLs perform better when competing with NBs who spends less on advertising commitment to brand equity, which makes the arena less competitive (Hoch and Banerji, 1993).

Consumer psychological characteristics

It is increasingly considered 'smart shopping' to purchase PLs of comparable quality for a much lower price, instead of buying higher priced NBs. This is particular important to consumers who recognize

themselves as smart shoppers and are not influenced by brands' advertisements and are able to make rational decisions. (Kumar and Steenkamp, 2007).

Nonetheless, brand loyal consumers tend to have a negative attitude toward PLs. They are not willing to switch from their favourite brand. Therefore, brand loyalty has a negative impact on PL market share (Burton et al, 1998). Moreover, impulsive consumers are also more likely to purchase NBs than PLs (Burton et al, 1998).

Economic cycles

PL share is linked to the economic cycle. It increases during recession time and decreases in period of economic expansion (Lamey et al, 2007). This effect can be explained by the fact that consumers are more price conscious during recessions and with less available income they switch from NBs to PLs (Hoch and Banerji, 1993). Moreover, PL share varies in an asymmetric way. It increases faster and more broadly during recession, than it falls in the subsequent expansionary phase. Part of this is due to consumer learning. Consumers learn about PL quality during recession and remain loyal to it (Kumar and Steenkamp, 2007). However, some authors defend that the explanation is more complex. Most manufacturers set their advertising budget as a percentage of sales and in periods of economic crises the advertising budget is reduced. Contrarily, retailers anticipating the consumer income effect, typically invest more in their PLs in this period. (Hoch and Banerji, 1993).

Innovation

The quality of PL may be seen as having two dimensions: (i) the quality level relative to NBs and (ii) the quality variability. The first one, depends on technological barriers in manufacturing and the second one on the difficulty of implementing reliable, low-defect manufacturing. Both dimensions tend to be lower when process sophistication is higher. (Hoch and Banerji, 1993). Thus, PLs tend to be more successful in products where the level of processing is low and technology is cheap. (Hoch and Banerji, 1993; Quelch and Harding, 1996).

Retailers don't have the resources to invest in R&D as manufacturers have. Hence, PLs have been historically followers, not innovators (Hoch and Banerji, 1993), offering products that already exist with the same quality level at a lower price (Quelch and Harding, 1996).

In line of the above, manufacturers should think twice before offering PLs in categories with high product innovation, where technology prevents from reaching NBs (Hoch and Banerji, 1993; Quelch and Harding, 1996), where even a small innovation will differentiate NBs from them. (Steiner, 2004).

3. Case study

3.1. Overview of the telecommunication sector

3.1.1. The present outline of the Portuguese market

Portugal is the Western Europe country where mobile telecommunications revenues represent a larger share of the GDP, representing more than 2% (Exhibit 5). The market has reached a mature phase: having one of the highest mobile service penetration rates in Europe – 157%⁸ in 2011 – and a mobile phone penetration level of 92%⁹ in 4Q2011. For that contributed the high rate of consumers owning more than one mobile phone and the fierce competition in the market that has led to a general decrease in mobile phones prices making them affordable to the mass market. On the other hand, the constant innovation and the rapid evolution of technology also stimulate a higher repurchase rate of these handsets.

Regarding mobile services, the Portuguese market has three main players: TMN, Vodafone and Optimus with, respectively, 44.1%, 40.2% and 14.4% active subscribers' market share (Exhibit 6).

Despite the competitiveness, the innovation and resilience of these operators, the last years were marked by severe macro-economic conditions and, in particular, by the European sovereign debt crisis, that has affected all sectors of the Portuguese economy. The growth of the unemployment rate combined with the contraction of GDP and private consumption aggravated with the heavy measures applied by the Telecommunications regulator influencing operators' revenues, had a negative impact in the telecommunication market. The mobile service revenues reduced 7.5%¹⁰ in 2011. Moreover, given the high level of mobile phone penetration and the financial constraints felt by Portuguese consumers in moving from traditional phones to smartphones has led to a decrease of total sales volume of mobile phones which in 2011 diminished 17%¹¹.

Contrarily to the majority of other Western European countries, in Portugal, the market is predominantly prepaid. In 2011 Vodafone prepaid segment represented 74%¹². Additionally, Portugal has a low Average Revenue Per User (ARPU) level (€13 in 2010 and €12.18 in 2011), especially when compared with the European average (€18.8 in 2010 – last available data from ANACOM). The ARPU level is clearly decreasing when compared to 2007 when it was 38% higher (€16.84¹³).

⁸ ICP - ANACOM

⁹ Barómetro telecomunicações - Marktest

¹⁰ Vodafone Portugal, Relatório&Contas Abril de 2011 a Março de 2012

¹¹ ICP - ANACOM

¹² Vodafone Portugal, Relatório&Contas Abril de 2011 a Março de 2012

¹³ ICP - ANACOM

Technology-wise, Portugal is following the latest trends, as explained in the following section. Internet and social networks are more and more popular and so are smartphones, tablets, apps and cloud services. The sales of smartphones in total volume handset sales are increasing at fast pace. Consequently, it is expected that data services also increase in terms of operators revenues.

3.1.2. The increasing importance of smart handsets and data

Mobile Phones are becoming a constant presence in people's daily life. For some, since the alarm clock rings in the morning until the latest talk or chat with some familiar or friend or the latest news update or e-mail sent, the mobile phone is almost becoming indispensable.

Across the world there have been significant changes in how people use their mobile phones to access the internet and other data services, introducing an all-new opportunity to operators. People are using mobile data ever-more in their everyday lives driven by continual improvements in devices such as handsets and tablets, fast, reliable mobile data networks and social networks.

Firstly, in current times, mobile phones are no longer just a tool for making calls and sending text messages. They have a large array of functionalities like camera, Radio FM, alarm, calculator, internet access, maps and games amongst other applications. With all of these functionalities, the smartphone is considered one of the most versatile and functional tool ever used.

Secondly, since 2009/2010 internet usage, either for personal or professional reasons has presented an incredible and unprecedented growth. There has been a swift from the exclusive use of internet in pc's onto other everyday devices like smartphones and tablets.

Finally, with the current phenomenon of social networks, hundreds of millions people around the world are visiting social networks and many are doing so on a daily basis. In Portugal more than half of the internet users visit social networks, like Facebook¹⁴.

In this context, smartphone's penetration has been increasing at a fast pace. At March 2011 the European penetration rate was 19%, a year later it reached 27% and at September 2012 it reached 30.7%¹⁵. Despite the current severe economic crisis, the acquisition of smartphones is expected to continue growing, mainly due to the emergence of ultra-low-cost, mass market smartphones.

¹⁴ Lisbon Internet and Network Institute in cooperation with UMIC – Agência para a Sociedade do Conhecimento, IP

¹⁵ Vodafone Group PLC annual report for the year ended on 31 March 2012 and Vodafone News Release, November 2012

Although in a more moderately way Portugal is not an exception to this trend. Smartphones, apps, social networking, cloud-based solutions and mobile broad band have beginning to move from early-adopters to the mass market.

The country has a smartphone penetration slightly below the European's average. Nonetheless, even with a lower available budget, Portuguese prefer to save on other items, in order to buy a TV or a handset¹⁶. A reflection of that is the fact that the smartphone segment contradicted the negative market trend and increased 16,4%¹⁷ when compared to 2010. Hence, smartphones represent a whole new opportunity for operators to invest in a mature market like this.

3.2. Vodafone Portugal

3.2.1. The company

Vodafone Portugal is 100% owned by the Vodafone Group – “one of the world's largest mobile communications companies by revenue, with approximately 404 million customers”¹⁸. Vodafone Group has equity interests in over 30 countries and more than 40 partner networks worldwide.

With a mobile services customer base of 6.2 million clients, the company is the second operator in Portugal with a 40.2% market share¹⁹.

One of the most admired companies in Portugal; Vodafone is leader in innovation, brand image and customer orientation and satisfaction. Its strategy is based on differentiation. Vodafone states that the strategy “is the essential basis of our growth and competitiveness, and it is characterised by:

- A constant concern to surpass our customers' expectations by providing them with innovative and unexpected experiences that generate a strong emotional association with the brand;
- The best experience in every situation when the customer comes into contact with the company;
- A constant focus on being the best telecommunications brand, with the best portfolio of equipments, the best prices, the best roaming offer, the best coverage and network quality and the most innovative mobile data offers.”²⁰

¹⁶ Deloitte TMT predictions 2012

¹⁷ Vodafone Portugal, Relatório&Contas Abril de 2011 a Março de 2012

¹⁸ Vodafone Portugal website - Who we are

¹⁹ ICP -ANACOM 2Q2012

²⁰ Vodafone Portugal website - Strategy

Vodafone is the Portuguese operator with higher ARPU, having in FY2011 an ARPU of €14.5²¹. Vodafone's ARPU decreased 7.3% when compared with the previous FY. This decrease is in line with the current trends. Additionally, in the same period Vodafone smartphone's penetration rate was 24%²², slightly below average penetration in Europe of 27%. This represents a great opportunity for Vodafone to explore.

3.2.2. The brand

Vodafone is ranked as the ninth most valuable brand worldwide with an attributed worth of US\$30 billion²³, and the most valuable telecoms brand in the world. The strength of the brand is a key competitive advantage for the operator and a major driver of purchasing decisions for consumers.

When compared with other operators/companies or brands from the Portuguese telecommunication sector, Vodafone Portugal has a spontaneous awareness approximately of 61%, being only surpassed by TMN with approximately 62% (Exhibit 7).

Strongly oriented to customer and with a vast experience to serve the public, Vodafone has been able to maintain the highest levels of customer satisfaction in the Portuguese market. According to the ECSI report, which measures the national satisfaction level of customers, Vodafone clients are the most satisfied in the telecommunication sector, with 7.79 in a scale of 1 to 10 (being 10 the highest).

The company and its brand differentiate themselves for the innovation, dynamism, joviality and trust. Innovation by the introduction of innovative products and services addressing the increasing more demanding customers' needs. Dynamism by creating and sponsoring major sporting and cultural events. Joviality as its major target is the youngsters. Trust due to its presence in customers lives, supporting them.

3.3. Vodafone handsets

3.3.1. Device portfolio strategy

In some markets mobile operators have the same range of mobile devices and/or unlocked mobile devices. However, in other markets, like Portugal, each operator has its own device portfolio,

²¹ Vodafone Portugal, Relatório&Contas Abril de 2011 a Março de 2012

²² Data provided by Vodafone

²³ Brand Finance

composed by mobile phones locked to the operator's SIM-card. In these markets, handsets play a crucial role in mobile operator's strategies.

For Vodafone Portugal, handsets are a key factor for attracting and maintaining costumers for both voice and data services, and consequently maintain and increase market share. The company believes that, besides network coverage/quality and family and close friends, having the best prices and the best handsets is one of the factors with more influence on the consumers' mobile operator choice with impact in the churn rate.²⁴

In this innovative, dynamic and competitive industry, where market share and revenues are often threatened, Vodafone uses handsets (i) to attract and retain customers, (ii) as a differentiation factor from its main competitors and (iii) as a leverage to stimulate data usage in the market in order to increase ARPU.

Handsets as a tool to attract and retain clients

Having the best handsets at the best price is not the only, but is also an important strategy to attract and retain customers. Operators have to constantly exceed Clients' expectations so they became loyal to the brand and, thus minimize the churn rate.

Handsets as a differentiation factor

To successfully differentiate its portfolio, Vodafone carefully segments the market in order to identify the consumer needs of each segment and which segments are over-served or under-served.

Establishing partnerships with the right suppliers is also a key point to differentiate the portfolio. "Suppliers with a strong brand in key markets are a must have in the operators portfolio. Other suppliers can be chosen selectively depending on their strategic fit and collaboration potential"²⁵ either as own-brand handsets or with ODM brands.

While choosing the right suppliers, mobile operators negotiate with them exclusive handsets. The exclusivity can be negotiated in several dimensions: time; design and platform. Time exclusivity is a time to market (TTM) generally from one to two months after the launch. With design exclusivity competitors can order handsets with the same functionalities, but a different design. Platform exclusivity assures to the operator to be the only one to sell a specific model in that country. This last

²⁴ This is also supported by Barómetro telecomunicações – 4Q2007 to 4Q2011

²⁵ Friedrich et al, The three pillars of device wisdom: How mobile operators must embrace devices as a key to success, Booz Allen Hammilton, 2005.

form of exclusivity is the most powerful and, consequently, more desired by operators. However, in exchange of it, suppliers demand volume commitments and price premiums. Moreover, nowadays, suppliers are less interested in guaranteeing exclusivity of equipments to an operator, and they are becoming ever-more demanding. Some, like Apple, do not negotiate any type of exclusiveness at all.

Vodafone hardly negotiates platform exclusive handsets. Nonetheless, when it is not possible the operator tries to ensure TTM or handset colour exclusiveness. On the other hand the company own-brand handsets programme, with devices exclusively distributed under the operators brand is also a key factor to differentiate its offer, as explained in further detail in section 3.4.

Handsets as levers to increase ARPU

Vodafone is investing on stimulating a higher usage of all mobile phones capabilities, as well as to maximize the lifetime value of the customers. Due to the continuous increase of smartphones, tablets and other mobile devices penetration, as well as the increase of mobile content and applications, the operator is specially focused on data services.

As Vittorio Colao, CEO of Vodafone Group, said “data bet is the right bet”, therefore since the change of its strategy in November 2010, Vodafone is focused on accelerating data mass market adoption, in order to increase ARPU, namely by stimulating smartphone penetration and by offering several services, content and apps. As such, the Group portfolio is aligned with the strategy and focused on smart devices and data enable services.

Incremental ARPU generated by data services varies considerably by country. Vodafone has evidences that in the best European markets the adoption of smartphones generates an incremental ARPU of €10. Nevertheless in other markets, the increment is residual. Thus, the operator goal until April 2013 is “to achieve a more consistent revenue return from data – through faster, more reliable networks, significantly enhanced customer service, and a range of new and differentiated services accessible through the handset”²⁶.

3.3.2. A glance at Vodafone’s device portfolio

Vodafone has a wide range of handset portfolio that covers different customer segments and price points with an increasing variety of designs and OS.

²⁶ Vodafone Group Plc Annual Report for the year ended 31 March 2012

Following its current strategy to boost data, the company is focused on enabling “an online experience for everyone, everywhere”²⁷. And smartphones are a key element for that. That is why the operator assures it has the ultimate and more successful smartphones with the most popular OS for every type of personal budget, from mass market entry smartphones - Vodafone Smart, priced at €99.9 - to high end smartphones - iPhone 5 64GB, priced at €899.9.

Additionally, for price-conscious customers that are not willing to own a smartphone, though want to surf in the internet and be always in touch with their friends in the social networks, Vodafone ensures to have an attractive range of feature phones, some with a special and easy key to access Facebook.

As such to maintain the differentiation and attractiveness of its portfolio, in 2012 calendar year:

- More than 30 new models were released;
- 14 platform exclusive handsets were launched, including Nokia Lumia 610 and Nokia Asha 201;
- A one month TTM was in force after the Samsung Galaxy S III 32GB was launched;
- Alongside with the major manufacturer’s handsets, 9 consumer handsets are available under Vodafone brand, including 3 entry smartphones and 4 feature phones;
- Aligned with the Group strategy, to stimulate smartphone penetration and boost data usage, smartphones accounted for almost 50% of the total models available in the portfolio and 30%²⁸ of total handset sales in volume.

Vodafone’s portfolio quality is acknowledged by third entities. According to Barómetro telecomunicações, from August 2011 to August 2012, Vodafone was the operator with the most attractive handsets in the consumer market.

3.4. Own-brand handsets

3.4.1. Vodafone branded handsets strategy

With little or no prior experience in the production of handsets, but with the knowledge of customer needs and preferences, operators typically enter into ODM agreements with established suppliers, in order to produce handsets customized according to their requirements and distributed exclusively by them under their own brand name.

²⁷ Vodafone Devices Autumn 2011 Brochure

²⁸ Data provided by Vodafone – YTD, November 2012.

The first own-brand handset was introduced in Europe in November 2002, by Orange – France Telecom mobile operator. Currently, several operators have handsets under their own brand name. In the Portuguese market, Vodafone, TMN and Optimus sell handsets under their brands.

Concerning Vodafone Portugal, the company shares the own-brand handsets developed by the Group under Vodafone branded devices programme. They are the result of strategic alliances with manufacturers (*e.g.* Alcatel, ZTE and Huawei), and design or platform exclusivity agreements. This way, manufacturer innovation expertise is combined with Vodafone knowledge of customer needs and preferences.

The first range of Vodafone-branded handsets was launch in September 2006. Vodafone 710 was the first handset manufactured for Vodafone Group, following the strategic alliance signed with Huawei in that year.

In a market dominated by few but large manufacturers with strong brands and high influence in the market, such as Samsung, Apple and Nokia, the main advantage of having own-brand handsets is to increase Vodafone's bargaining power near manufacturers (OEM). With the introduction of own-brand handsets, Vodafone is less dependent on OEM products and has more power to negotiate OEM handset prices and exclusive handsets, which otherwise could be negated by the size of these manufacturers.

On the other hand, these handsets, exclusively developed for Vodafone according to its requirements in terms of design, hardware, software, etc., are *(i)* an important differentiation factor from other operators, *(ii)* a tool to better address the customer needs and *(iii)* a leverage to reinforce Vodafone's brand and its positioning.

In the current scenario where exclusivity contracts are becoming more difficult to negotiate, having own-brand devices guarantees that Vodafone is the only one to have these handsets. Additionally with a higher degree of customization, these handsets meet specific needs of operators' customers allowing a better segmentation and, ultimately generate a higher ARPU.

3.4.2. Vodafone branded handsets portfolio

Vodafone exclusive own-brand handsets are a strong communication and marketing tool in the market. With a strong and powerful global brand, Vodafone branded handsets benefit from brand awareness

and trust and leverage on Vodafone global brand communication. They also reinforce Vodafone position when dealing with manufacturers and in a lower scale facilitate the company reaction to market evolutions and disruptions.

Vodafone own-brand portfolio is aligned with the group strategy of driving growth in data services and with the ultimate trends in the market, namely social networks. In short, Vodafone's own-brand device program is based in four pillars.

Firstly, Vodafone is clearly investing on ultra-low cost entry smartphones. The group has launched the Vodafone Smart family, composed by Android-based smartphones, the most popular OS in the market, priced under €110. Vodafone Smart family handsets are positioned in the market as affordable entry smartphones with a great price-quality relationship. They are targeted for traditional mobile phones owners who want to change to a more advance phone but are not willing to pay much for it and for smartphone owners who want to upgrade from their previous phone.

Secondly, Vodafone is also betting on social network-oriented handsets, offering Vodafone 555 a feature phone with a distinctive characteristic: a Facebook-dedicated key to guarantee an easy and simple way to be always in touch with others in the social network.

Moreover, for customers with a smaller budget, Vodafone offers a range of ultra-low cost, simple to use yet stylish handsets and feature phones with optimized internet and messaging experience at an affordable price.

Finally, whether smartphone, feature phone or low-end phone, Vodafone-branded mobile handsets are developed to ensure costumers affordability – they are generally position as the most affordable in the related class – without compromising on quality, performance and user experience. Additionally, they are differentiated with simple and relevant Vodafone applications and services.

In terms of volume production, in FY2008, 10 million Vodafone-branded handsets were shipped worldwide, which means that 1/6 of the phones shipped by Vodafone were from its own brand range. One year after the number increased to 10.7 million handsets. In 2012, 1 million handsets were shipped just from one model - Vodafone Smart, the low-cost entry smartphone from Vodafone.

Concerning Portugal, in terms of portfolio volume, own-brand mobile phones account for about 15%²⁹ of the total models available in the device portfolio. In terms of sales volume, Vodafone, as a device brand, was the third, with 8% market share in 2011 and 10% in 2010. The brand is only behind the

²⁹ Percentages calculated according to all available models in the operator website in November 2012

two giants Samsung and Nokia, with, respectively, 35% and 31% market share in 2011³⁰. Vodafone's results are mainly due to the ultra-low cost basic phones. For FY2012 the company estimates these handsets to represent 1/7 of the total number of handsets sold by Vodafone.³¹

According to Patrick Chomet - Group Terminal Director – “Vodafone Smart (designated abroad as Vodafone Smart II) is one of the most important handsets Vodafone has ever introduced”. In order to have a better understanding of the equipment, below is presented a small description of its strategy.

Vodafone Smart

Launched in June 2012, and with 1 million units shipped worldwide, Vodafone Smart (Exhibit 8) “delivers a level of performance, functionality and quality that is traditionally preserved for high-end smartphones but at an exceptionally affordable price”³². Priced at €99.9, Vodafone considers it “the best value for money in the market”.

The cheapest smartphone in Vodafone portfolio (exception made for its predecessor) is 2.3 Android device features a 3.2” capacitive touchscreen with 64 million colours, a 832 MHz processor, a 3.2 megapixel camera with white LED flash, 3,5G, Wi-Fi connectivity and assisted GPS. “All these, packet into an elegant design using high-quality materials for an enhance user experience”.

To ensure simplicity and encourage further exploration into more sophisticated applications, some Vodafone application where pre-loaded.

Vodafone Smart is targeted to the following segments: Conservative users looking for the first experience with smartphones with a basic, easy-to-use smartphone at an affordable price; and existing entry smartphone users looking for upgrade.

The launch of this smartphone was supported by a strong communication plan focused on affordability, value for money, differentiation and reliability. This device was covered in TV ads, point-of-sale-material, press, outdoor, PR and the website. This device is available in Vodafone standard portfolio as well as in Clube Viva – Vodafone loyalty program, where it can be bought at a lower price using Vodafone accumulated points.

³⁰ IDC European Mobile Phone Tracker 2010 and 2011

³¹ Data provided by the company. The real value might vary slightly.

³² Patrick Chomet, Group terminal director

3.4.3. Competitors own-brand handsets

At this point, it is important to understand how Vodafone main competitors behave regarding own-brand strategies. Which handsets they have? Do they have the same positioning as Vodafone handsets?

Both TMN and Optimus have similar underlying strategies to Vodafone's. They are investing on affordable own-brand smartphones as a lever to increase data usage. But, simple call and texting phones at an affordable price continue to represent the majority of sales volume. However, it is important to stress that in opposition to Vodafone, they are investing in expanding their own-brand smartphone portfolio introducing smartphones that are not just entry-ones. Therefore, by their multi-tiered strategy, TMN and Optimus branded smartphones are increasing their representativeness in their total sales volume.

Optimus is the carrier with more own-brand handsets in its portfolio (representing approximately 17.5%³³ of the models available) and a stronger promotion plan for them. Optimus branded handsets result from a strategic partnership with France Télécom – which holds a 20% stake in Sonaecom, which in turn holds 100% of Optimus. As already mentioned, Orange was the pioneer in own-brand approach, and currently has vast and strong own-branded handsets portfolio.

During 2011, alongside with the launch of major manufacturers' equipment, Optimus implemented a strong communication plan of Optimus branded smartphones, boosting its competitive advantage in the market. The plan covered TV ads, point-of-sale-material, press, outdoor, PR and web. "Among several equipment releases, it is worth highlighting Optimus Pequim, the first smartphone targeting the youth segment; Optimus Stockholm, the first smartphone under 100 Euros; and Optimus Monte Carlo, a high-end handset at an affordable price below 200 Euros. These three smartphones are Android-based and address different and specific consumer's needs. All these releases were supported by a strong and innovative promotion plan and represented important milestones in the Portuguese market."³⁴

With 10 handsets using its brand, "TMN also leverages on partnerships with key suppliers, using own brand or third party brands, to maintain a distinctive and attractive offering for smartphones"³⁵ and other handset. Though, they are not as intensively promoted as Optimus own-brand phones.

³³ Percentage calculated according to all available models in Optimus website at November 2012

³⁴ Sonaecom annual report 2011

³⁵ Portugal Telecom Consolidated annual report 2011

To analyse in further detailed the three operators' portfolio, a benchmark was performed.

Own-brand handsets benchmark – smartphones

Comparing the three operators' own-brand smartphone portfolio (Exhibit 9), it is possible to observe that all offer exclusively Android-based handsets. Vodafone has a strategy focused on entry-low-costs smartphones. TMN, besides entry-low-cost smartphones offers TMN Smart A15 slightly positioned above, priced at €159.9. As for Optimus, in addition to entry-smartphones priced below €100, and smartphones slightly positioned above them, the carrier differentiates its portfolio from its competitors with Optimus Madrid, the only high-end own-brand smartphone in the Portuguese market at an affordable price for its tier.

Own-brand handsets benchmark – basic and feature phones

Regarding handsets for specific segments, all operators typically sell them under their own-brands. For example, for the senior segment: Vodafone 155 and TMN Easy 1 and for the junior segment: TMN Script 23 Kids, Optimus Roma Hello Kitty, Optimus Malibu Hello Kitty, Optimus Vegas Popota and Optimus Lisbon Star.

As for basic and feature phones, as detailed in Exhibit 10, these handsets are priced between €19.9 and €49.9 and they are the cheapest offer in their tier. Vodafone and TMN's cheapest mobile phone is an own-brand device priced at €19.9.

Furthermore, bearing in mind the social network trends, Vodafone and TMN offer a feature phone with easy access to Facebook priced under €50.

3.5.An insight into the Portuguese handset market – Customer perspective

Choosing a mobile phone can turn out to be a complex process. There are several brands in the industry, all of them in constant innovation and continuously introducing new handsets with a multitude of different features.

In the decision making process, consumers have to first identify the needs behind buying a mobile phone and understand which type of use they want from the device. According to that, they must choose between a smartphone, a feature phone or a basic phone. Afterwards, the customer has to evaluate several product attributes, namely price, brand, OS (if a smartphone), shape of the phone,

keyboard type (QWERTY keyboard or not), etc. in order to choose the ideal combination to satisfy its needs.

According to Barómetro telecomunicações (Exhibit 11), in general, the price is the factor that motivates higher dissatisfaction among operators, followed by the retail chain and product and services diversity, while store assistance, network coverage/quality and customer support are the ones which motivates higher index of satisfaction.

3.5.1. Consumer trends and how Vodafone own-brand meets them

Type of mobile phone

The number of smartphones sales has been increasing, with 1.32 million units sold in 2011 (Exhibit 12), smartphones represented 26% of the total handsets sold that year. This trend was also seen in the 1Q and 2Q of 2012 where smartphones accounted for, respectively, 32% and 42% of the period sales.³⁶

Concerning the advanced services used by customer with a 3G handset or BlackBerry®, according to Marktest (Exhibit 13), people mainly use them to send MMS (43%), to access internet (33.8%) and e-mail (22.1%) and to download content (21.9%).

Aware of smart handsets popularity and data as growing source of revenue, Vodafone is betting in offering ultra-low-costs smartphone. This way, the company instigate a mass market adoption of smartphones and data services usage. Nonetheless, basic and feature phones are still the core of Vodafone-branded handsets.

Brands

From the existent handset manufacturers, the most popular in Portugal are Samsung and Nokia. The first with a market share of 35% in 2011, which maintained relatively steady during 2012 first semester. The second with 31% market share in 2011 (Exhibit 14). Samsung market share has been increasing since 2010 mainly due to the success of the Galaxy family – its android-based smartphones. The manufacturer is very strong in high-end smartphones, introducing very innovative and competitive handsets which only truly compete against Apple. However, the majority of sales are from medium-end and lower-end handsets. And in these segments, Nokia is the leader, with Portuguese preferring its traditional phones over other manufacturers.

³⁶ IDC European Mobile Phone Tracker, February 2012; February 2012; May, 2012; August 2012

After these two giants, Vodafone, as a brand, is the third brand with higher sales in Portugal, accounting for 8% of the total handset sales in 2011. According to IDC this position is due to the affordability of Vodafone own-brand handsets.

Concerning Vodafone branded-products, a study conducted by Vodafone Group, showed that users with a basic use of the device are the most prone to buy these handsets. Consumers with a moderate use level of the device, typically expect Vodafone handsets to be cheaper than manufacturers' handsets in order to buy it whereas consumers with a high use level tend not to buy Vodafone-branded handsets.

Operating system

Smartphone's OS is an important factor when deciding which smartphone to choose. In Portugal Android – Google's OS - is the leader in the market, followed by Symbian – Nokia OS. That's motivated by the fact that Android is available in more handsets than other OS, some of them at lower price. Aligned with this trend, Vodafone-branded smartphones have all Android OS.

Price

Price can have a significant influence in the purchase, special in the current economic crisis scenario where Portuguese people are more prices sensitive. In fact in Portugal, low-end and low-cost handsets are still dominant. Mobile Phone priced below €40, represented about 34%³⁷ of the total units sold in Portugal and mobile phones priced between €40 and €100 represented approximately 41%³⁸. On the other hand, the growth in smartphone penetration is mainly due to the emergence of ultra-low-cost equipments, people have greater tendency to acquire a smartphone if it is cheaper. Note that mobile phones priced above €200, represented less than 8%³⁹ of the total sales units in 2011.

Price is one key selling point of Vodafone-branded handsets. Vodafone offers own-brand handsets with the same level of quality of the existence but at a lower price. However, low-prices can be associated with power quality, predominantly in higher tiers where consumers normally have higher involvement with the device. Concerning price sensitiveness towards Vodafone-branded products, a study conducted by Vodafone Group, showed that users with a moderate use level of the device, typically expect that Vodafone handsets to be around 20% cheaper than manufacturer handsets.

³⁷ Data provided by the company. The real value might vary slightly

³⁸ Data provided by the company. The real value might vary slightly

³⁹ Data provided by the company. The real value might vary slightly

Shape, screen, Qwerty Keyboard and other features

Typically, clients also look for the form factor of the device: slider, clamshell candybar, QWERTY or touch tablet.

In Portugal, CandyBar phones are the ones with more unit sales in 2011, followed by touch tablets only and then QWERTY.

Other features are also important to the buying decision, especially when talking about customers with an advance user level of the handsets. These costumer have in consideration a vast array of features including camera, video recording, memory, etc. and are the least prone to buy operators-branded handsets.

In this context, Vodafone-branded offers “From simple browsing, right up to chatting on QWERTY keyboards, best in-class Facebook integration and unlimited access to apps”.

4. Market research analysis⁴⁰

In order to understand the impact of own-brand handsets on consumer's attitudes and perceptions, an online survey (appendix 1) was conducted. This survey was divided in three parts. The first one aimed to understand consumers' perceptions about PL phones and their predisposition to buy it. The second part tried to comprehend the real consumption behavior effect in terms of likelihood purchase. Finally, the last part goal was to obtain information about the participants.

To better address the second part of this survey, two studies were conducted. Firstly, it was simulated an online shopping scenario, where three handsets were presented along with a comparative chart with their main characteristics. All the three handsets had the same operating system and similar characteristics and price. Secondly, in order to evaluate the possible effect of price and brand in the purchase decision, 7 mobile phones were shown and respondents were asked whether they would buy a PL phone instead of the NB if the first had exactly the same characteristics but with a price 10% lower.

For the overall market analysis, it was considered a population of 8.537 thousand⁴¹, which corresponds to the total amount of individuals who own or use a mobile phone at the end of December 2011. The sample was of 283 valid respondents, for a 95% confidence interval and a 5.8% error margin, and it was composed by 59% female versus 41% male respondents.

All respondents, except for one were 18 years old or more. The most represented age segment was 25-34 years old with 56%. The second segment more represent was the 18-24 years old (25%), followed, respectively, by the 35-44 years old segment (9%), the more than 54 years old segment (6%) and the 45-54 years old segment (4%). The two segments more represented in the survey are the ones with higher mobile phone penetration⁴².

Vodafone's clients constituted a total of 208 respondents, corresponding to 73% of total number of valid respondents. 118 respondents were TMN clients, corresponding to 42% and 14 were Optimus clients. This indicates that about 22% of the respondents are clients from more than one operator.

Concerning the type of phone owned, the majority of the respondents stated that they own a smartphone (200 respondents, corresponding to 71%), which could be explained not only by the fact that the survey was disclosed on a social network platform and therefore its users are more

⁴⁰ Market Research results are detailed in Exhibit 15

⁴¹ Barómetro de telecomunicações - Marktest

⁴² Barómetro de telecomunicações - Marktest

familiarized with technologies valuing them ever-more, but also by the fact that the segment with higher representativeness in the survey (25-34 years old) is the one with a higher smartphone penetration⁴³. Not surprisingly, the brands with higher representativeness were Nokia, Samsung and Apple, followed by RIM with BlackBerry® and only 13 respondents state to have an own-brand device (8 from Vodafone, 3 from TMN and 1 from Optimus), representing circa 5% of the sample.

Regarding the factors influencing mobile phone purchase decision, price was the most important, followed by both the full range of features available in the mobile phone as well as its ease of use and finally the brand. With less importance, design and the OS are also taken into consideration by respondents. Other factors like durability, positive feedback, access to social networks and social networks appear to be the less important attributes.

When questioned if they would acquire a PL handset with a good price-quality relationship it was notorious that the majority of consumers were receptive to buy it, either if it was a basic phone (76%), a feature phone (67%) or a smartphone (66%). However, the degree of receptiveness varied between the types of mobile phones, being the basic phone the one that more consumers stated to buy without any doubt (46%). Concerning feature phones and smartphones, the majority of consumers stated they would probably buy but only 19% and 25%, respectively, would buy them without any doubt.

To access if this predisposition to buy a PL handset is reflected on a real buying situation, an online shopping purchase scenario was simulated in the survey. And three mobile phones from the current Vodafone's portfolio with similar prices and characteristics were presented. To turn the act similar to an online purchase, the image of each phone as well as the main characteristic were shown. From the three handsets presented Vodafone Smart was the one with lower price (€99) whereas LG Maximo L3 was the more expensive (€119.9) and Samsung Galaxy Gio was between both (€109.9). For its relevance in the case study and importance given by Vodafone, the Vodafone Smart, was the Vodafone-branded device elected to test consumers buying behaviour when two other handsets with similar characteristics are also available.

When confronted with this purchase scenario, despite the fact that the majority of respondents had previously stated to be receptive to buy a PL smartphone, the Vodafone Smart was the least chosen from the 3 smartphones presented. Only 24% of the respondents choose the Vodafone Smart, while 28% would buy the LG Maximo L3 and 48% the Samsung Galaxy Gio.

This could be explained by the fact that the majority of respondents (90%) do not agree or not totally agree that PL phones are as good as the ones from the major brands. The major advantage they

⁴³ ComScore – December 2011

recognize in a PL phone is the price, followed by a good price-quality relationship and the ease to use. However, respondents do not consider these phones neither as visionary, nor as having a stylish design and when isolating the quality factor their perception is not consensual.

For the above simulated purchase scenario, the three real smartphones chosen were not 100% alike. In the market and in a real purchase decision there are hardly three smartphones exactly the same. So other factors beside the brand could affect these responses. As such, another study was made in order to access the receptiveness to buy a PL mobile phone with the exactly same features but with a 10% lower price than the following NBs mobile phones: iPhone 5; HTC One X, BlackBerry® Curve™ 9220, Nokia C5-03; Huawei G6609; ZTC SP55; Samsung E1120.

The evidences suggested two phenomena. On the one hand, customers seem to be more receptive to buy a PL (in these conditions) in handsets where the level of processing is low and with cheaper technology *i.e.*, in low-end mobile phones⁴⁴ but also, more moderately, in low-end smartphones⁴⁵. On the other hand, Apple seems to have higher brand loyalty than other brands, with more than 50% of the respondents stating they were not willing to switch their iPhone 5 for a PL at a discount price even if they had exactly the same characteristics. These results confirm several reports findings, namely comScore (2012) that states iPhone is the ideal phone for the majority of consumers and the one with higher satisfaction levels.

Last but not least, the study shows that consumers don't seem to recognize or identify any significant difference between Vodafone-branded handsets and its main competitors (TMN and Optimus).

⁴⁴ Samsung E1120, ZTC SP55 and Huawei G6609

⁴⁵ Nokia C5-03

5. Conclusions

Conclusions

Offering the best handsets at the best prices is increasingly important in the telecommunication market, where the differentiation factor is increasingly difficult to maintain. Bearing this in mind, Vodafone has handsets in the heart of its strategy. They constitute a differentiation factor and a way to better fulfill the customer segments needs and ultimately, to achieve superior return from the valuable segments.

The case study evidences that, in this scenario, Vodafone-branded handsets assume a growing importance since they are exclusively sold by Vodafone and therefore differentiate Vodafone's portfolio from its competitors. Moreover, they are an important tool to increase the company's negotiation power with manufacturers, which is crucial since the market is dominated by a small number of large powerful companies (e.g. Samsung and Nokia)

Concerning own-brand mobile phones, Vodafone Portugal shares Vodafone Group handsets. The Company's own-brand portfolio is focused on low-end handsets from basic phones to smartphones. This approach goes in line with Vodafone strategy to foster the usage of data services and as such increase revenues in this area. All of them are positioned as the cheapest offer in their tier. In the case is also evidenced that, in opposition to Vodafone's strategy, who offers two entry-low-cost own-brand smartphones, Optimus and, at a lower scale, TMN are giving the first steps in adopting a multi-tiered PL smartphone strategy by investing in medium-end and high-end smartphones.

PL acceptance in the FMCG is growing within European consumers and specifically in Portugal, where its market share has surpassed 40%.

Nonetheless, PL acceptance varies across sectors and categories of products. Previous research has suggested that due to quality variability concerns by consumers, PL have more market power in categories that historically have less product innovation and where the level of processing is low and technology cheap (Hoch and Banerji 1993).

In line with the previous research, this study suggests that people are reluctant to buy own-brand mobile phones in high-end handsets, where the purchase has a higher involvement. While in low-end devices, with cheaper technology and a lower level of processing, people seem to be predisposed to buy them. This evidence also corroborates Vodafone Group study, since in general the type of mobile

phone owned reflects the type of usage consumers give to them. Vodafone Group study suggested that basic users are the ones most willing to buy own-brand handset, while high-level users tend not to buy Vodafone-branded handsets.

The study also suggests that there is a discrepancy between people predisposition to buy an own-brand mobile phone with a good price-quality relationship and its actual purchase. This might be related to the fact that, despite consumers consider own-brands as having an attractive price, a good price-quality relationship and by being easier to use, the large majority of consumers do not consider PL mobile phone as good as NBs. As the research suggests, quality perception greatly influences the market power of a brand. Moreover, in doubt, people are willing to pay to avoid uncertainty, and brands are able to assure quality at consumers' eyes.

Additionally, in the market research conducted, from the three mobile phones with similar characteristics presented (Samsung Galaxy Gio, Vodafone Smart and LG Maximo L3), Vodafone Smart was the last buying option for the majority of the respondents. "This smartphone is one of the most important devices Vodafone has ever introduced" – Patrick Chomet, Vodafone's Group Terminal Director. Therefore, the company might need to rethink the necessity of investing in a stronger communication plan for this product.

Another interesting factor suggested by the market research is the fact that people don't seem to recognize or identify significant differences between the PL's mobile phones offered by the three main Portuguese operators.

In light of the above, Vodafone's own-brand strategy seems to be aligned with consumers' willingness to buy own-brands handsets, investing only on very affordable low-end handsets and aligned with the group strategy of increasing data services, investing on entry-low-cost smartphones. Nonetheless technology rapid pace and the fierce competition in the market urge operators to constantly understand consumers' preferences better in order to offer unique and competitive products with desired attributes (Kımlıoglu et al, 2010).

Limitations

This study had three main limitations.

Firstly, the lack of academic studies about the mobile phone market and the main factors affecting the consumer decision process. This situation was aggravated by the high levels of innovation of this market and its reality in constant change (*e.g.* 5 years ago, smartphones were not even an issue),

which prevents older studies to mirror the actual market situation. Moreover, major manufactures and operators studies about the topic are not available to the public.

Secondly, due to confidential reasons, Vodafone Portugal did not made available data about sales nor from the main factors affecting consumers' decision regarding mobile phones which prevented to support the case study conclusions on it. Therefore third sources studies, namely from IDC, where used and an online survey was made to have a deeper understanding of consumers.

Finally, the sample size and its eventual homogeneity derived from the fact that it was spread through a social network may have biased the market research. It would have been interesting to have a larger and a more diversified sample to base the conclusions.

Directions for further research

To have a more in-depth understanding of consumers' perceptions and predisposition to buy own-brand handsets it would be interesting to do a focus group or to inquire directly consumers in the purchasing act.

Taking the investigation one step further, it could be explored the apparently discrepancy (that the current study suggests) between consumers' predisposition to buy an own-brand mobile phone and their effective buying behavior.

Moreover, instead of focusing the case study in all mobile phone consumers, an interesting approach would be to specifically study own-brand mobile phones owners and understand their motivations to buy them and their satisfaction level with them.

Regarding operators' own-brand strategy it would add value to explore the impact of a multi-tiered strategy. Vodafone has not adopted this strategy for smartphones, whereas Optimus is giving the first steps on it.

Other interesting theme that could be explored is which brands are more vulnerable to own-brand handsets and which the most efficient strategies to compete against them are.

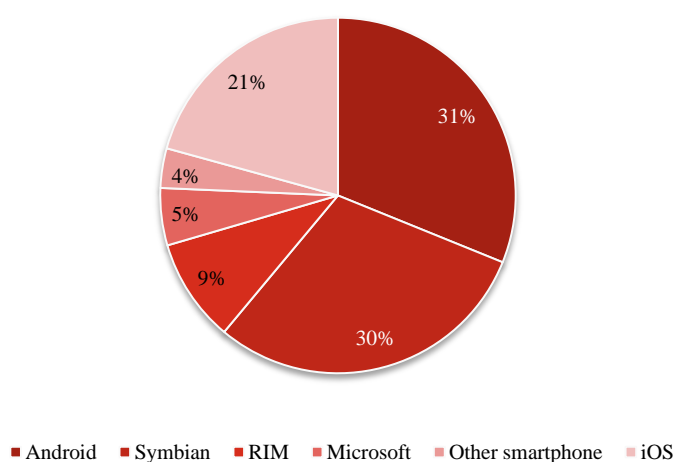
6. Exhibits

Exhibit 1 – Top OEMs by share of total mobile market and smartphone market

	Total mobile		Smartphone	
UK	Nokia	24.4%	Apple	26.4%
	Samsung	19.9%	HTC	18.5%
	Apple	13.6%	RIM	18.3%
France	Samsung	37.9%	Samsung	27.3%
	Nokia	18.5%	Apple	25.2%
	Apple	10.1%	Nokia	15.8%
Germany	Nokia	29.1%	Nokia	25.1%
	Samsung	24.3%	Apple	22.2%
	Sony Ericsson	13.5%	Samsung	20.3%
Italy	Nokia	43.8%	Nokia	51.7%
	Samsung	24.2%	Apple	15.8%
	LG	7.2%	Samsung	14.1%
Spain	Nokia	40.7%	Nokia	37.2%
	Samsung	20.4%	Samsung	17.9%
	Sony Ericsson	8.4%	Apple	11.5%

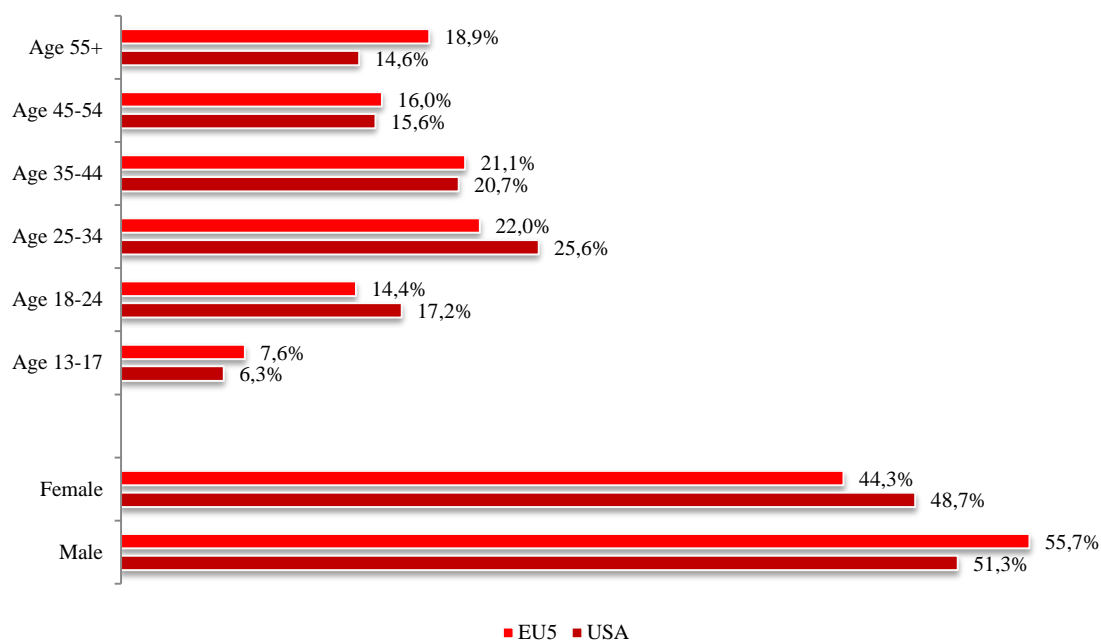
Source: comScore Mobilens, 3 mon. avg. ending Dec-2011, EU5

Exhibit 2 – Smartphone market share by OS in EU5



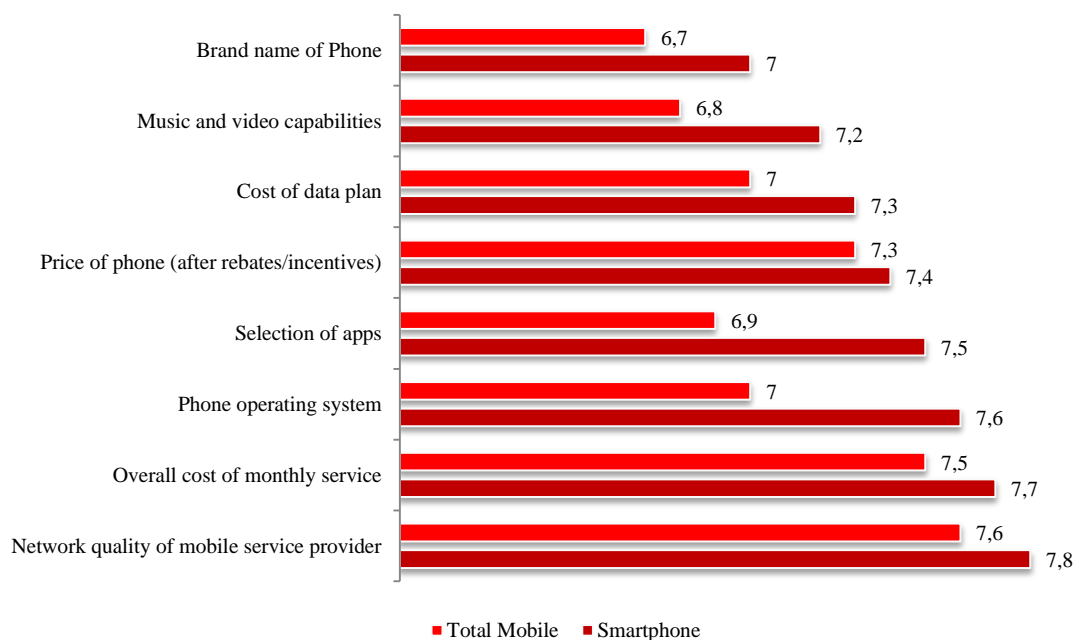
Source: comScore Mobilens, 3 mon. avg. ending Dec-2011, EU5

Exhibit 3 - Smartphone users by age and gender



Source: comScore MobilenS, 3 mon. avg. ending Dec-2011, USA and EU5

Exhibit 4 - Top purchase consideration factors for smartphones vs. total mobile



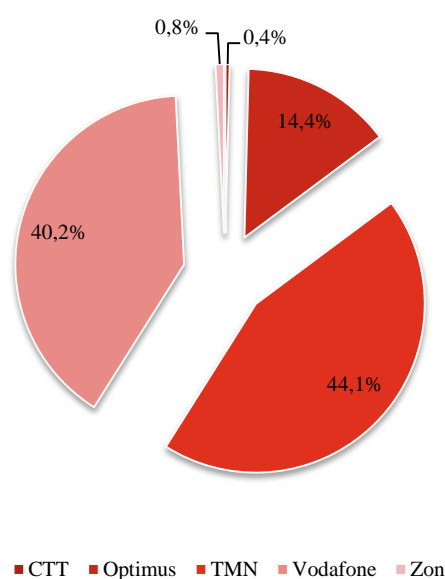
Source: comScore MobilenS, 3 mon. avg. ending Dec-2011, EU5 mobile (1 to 10 scale, 10 = most important)

Exhibit 5 - Mobile Telecommunications revenues as a % of GDP



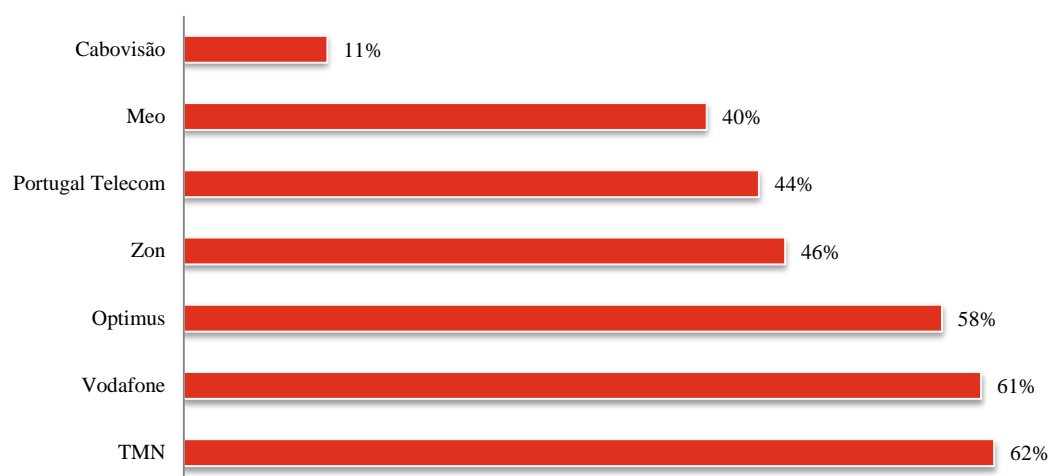
Source: Vodafone Portugal 2011 Annual Report

Exhibit 6 - Mobile services market share by subscribers with effective use



Source: ICP-ANACOM - 2Q2012

Exhibit 7 - Mobile, fixed, internet or TV companies/operators/brands brand recall



Source: Barómetro telecomunicações – October 2012

Exhibit 8 - Vodafone Smart Glam



Source: Vodafone brand

Exhibit 9 - Own brand smartphones from Vodafone, TMN and Optimus - November 2012

Own brand smartphones					
Price Range	Vodafone		TMN		Optimus
<€100	Vodafone 858 €79,9	Vodafone Smart €99,9	TMN Smart A1 €99,9	TMN Smart A7 €99,9	Optimus Pequim €89,9
€100 - €200	Vodafone Smart Chat €119,9		TMN Smart A15 €159,9		Optimus Helsinki €129,9
>€200					Optimus Barcelona €159,9
					Optimus Madrid €239,9

Source: www.tmn.pt, www.vodafone.pt, www.optimus.pt

Exhibit 10 - Own brand non-smartphones from Vodafone, TMN and Optimus - November 2012

Own brand non-smartphones						
Price Range	Vodafone		TMN		Optimus	
<€25	Vodafone 255 €19,9		TMN Easy €19,9	TMN Black Stone €24,9	Optimus Dallas €21,9	
€25-€40	Vodafone 345 €29,9		Vodafone 455 €29,9		TMN Mini Stone €29,9	
			TMN Script 23 €29,9		Optimus Amsterdam €29,9	
					Optimus Roma €39,9	
					Optimus Vienna €39,9	
>€40	Vodafone 550 €45,9		Vodafone 555 €49,9		TMN Script 63 €49,9	
					Optimus Malibu €49,9	
					Optimus Sydney €49,9	

Source: www.tmn.pt, www.vodafone.pt, www.optimus.pt

Exhibit 11 - Average customer satisfaction regarding the mobile telecommunications services provided by carriers according to different criteria

	4Q2009	4Q2010	4Q2011
Network Coverage/quality	8.2	8.2	8.3
Client Support	8.0	8.1	8.2
Diversity of products and services	7.9	7.9	8.0
Prices	7.2	7.2	7.3
Store Assistance	8.1	8.2	8.2
Retail Chain	7.6	7.8	7.9
Carrier Global service	8.3	8.3	8.3

Source: Barómetro telecomunicações – 4Q2009 to 4Q2011

Exhibit 12 - Mobile Phones sales in Portugal

	2010		2011		1Q2012		2Q2012	
	Sales ('000)	Market share	Sales ('000)	Market share	Sales ('000)	Market share	Sales ('000)	Market share
Non-smartphones	4 950	81%	3 740	74%	660	68%	623	58%
Smartphones	1 151	19%	1 320	26%	307	32%	457	42%
Total	6 101	100%	5 060	100%	967	100%	1 080	100%

Source: IDC European Mobile Phone Tracker, February 2012; February 2012; May, 2012; August 2012

Exhibit 13 - Advanced services used by customers with 3G handset, BlackBerry®, smartphone or PDA

	4Q2008	4Q2009	4Q2010	4Q2011
Access to operators portal	13.1%	11.3%	9.8%	10.8%
Downloads	13.5%	21.3%	18.5%	21.9%
Access e-mail	11.9%	12.9%	17.1%	22.1%
Access internet	22.4%	25.2%	28.4%	33.8%
MMS	46.4%	45.2%	47.7%	43.0%
Video call	22.2%	20.6%	20.0%	14.7%
Messenger	13.9%	14.7%	16.8%	13.7%
None of the above	42.0%	39.2%	37.7%	39.0%

Source: Barómetro telecomunicações – 4Q2009 to 4Q2011

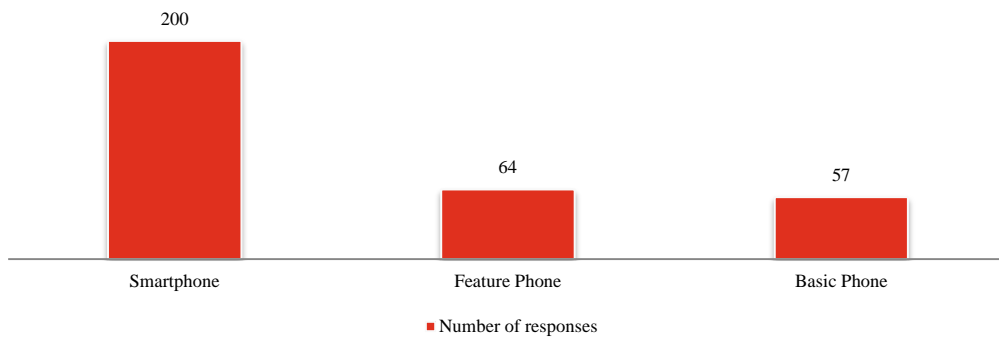
Exhibit 14 - Total mobile phones (smartphones and traditional phones) sales volume by brand

	2010		2011		Var.	1Q2012		2Q2012	
	Sales	Market	Sales	Market		Sales	Market	Sales	Market
	('000)	Share	('000)	Share	2011/ 2012	('000)	Share	('000)	Share
Samsung	1850	30%	1771	35%	-4%	321	33%	359	33%
Nokia	2254	37%	1582	31%	-30%	318	33%	311	29%
Vodafone	589	10%	396	8%	-33%	65	7%	72	7%
Other	1392	23%	1304	26%	-6%	263	27%	338	31%
Total	6085	100%	5053	100%	-17%	967	100%	1080	100%

Source: IDC European Mobile Phone Tracker 2010 and 2011

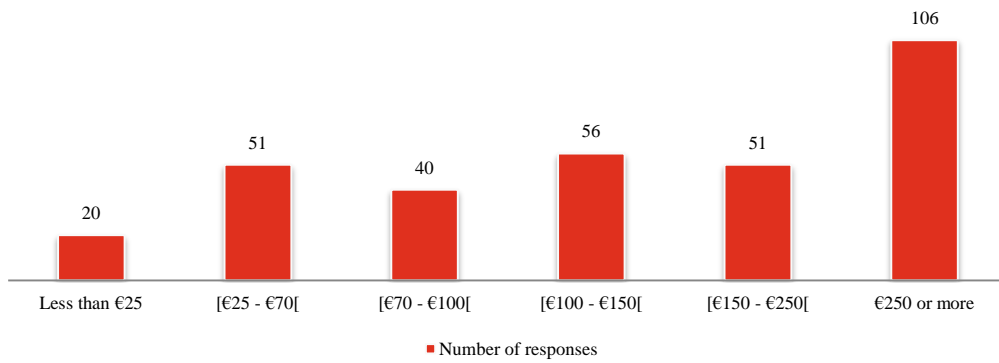
Exhibit 15 - Online Survey Report

Type of phone owned



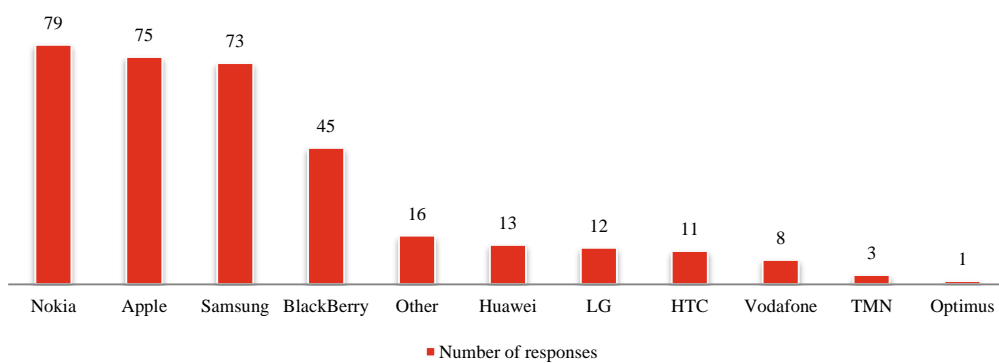
The above question enabled more than one answer by respondent

Price paid for actual mobile phone

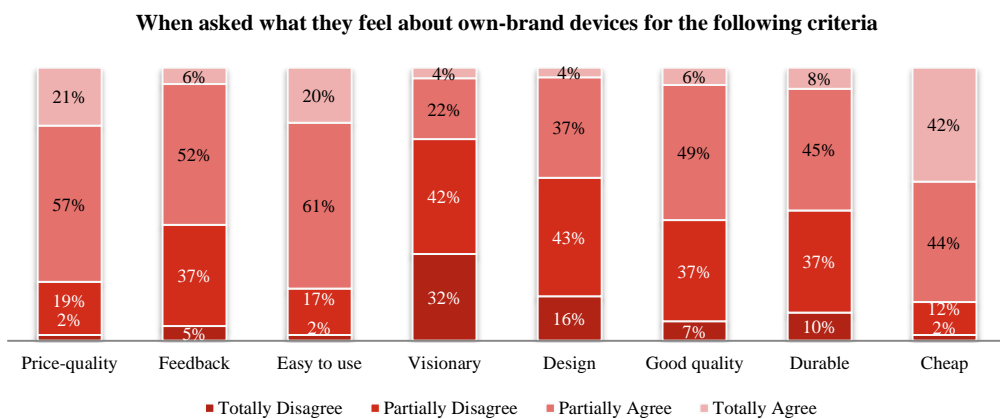
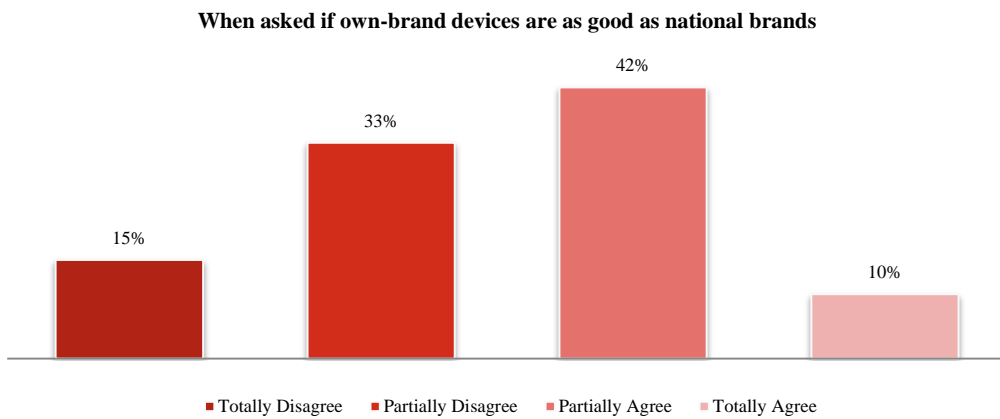
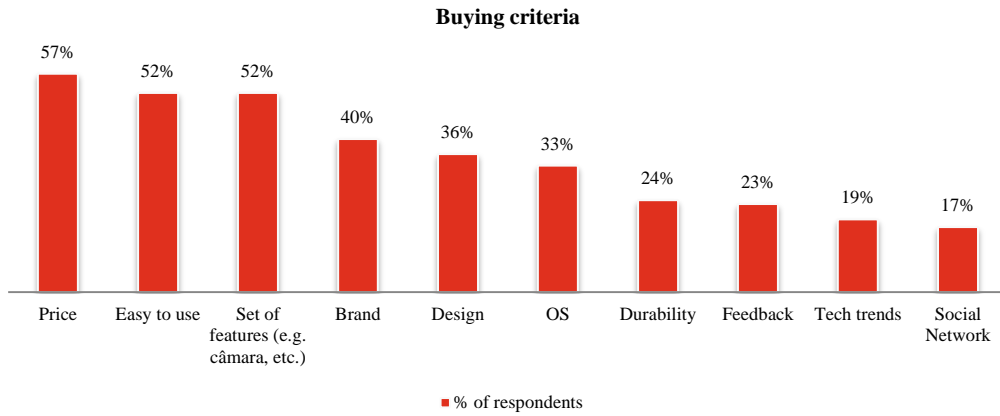


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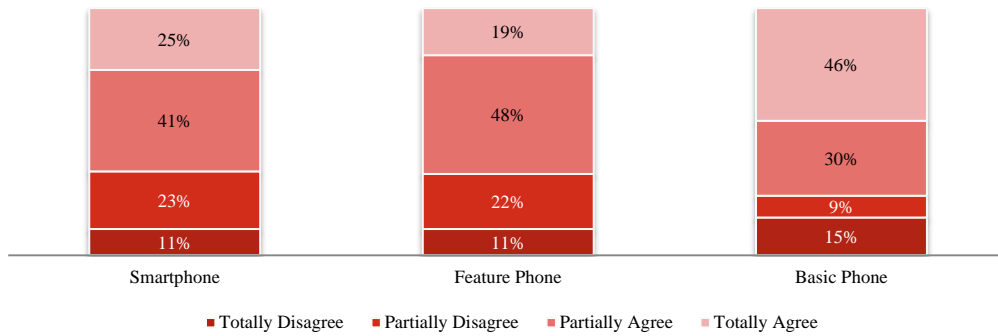
Mobile Phone brand



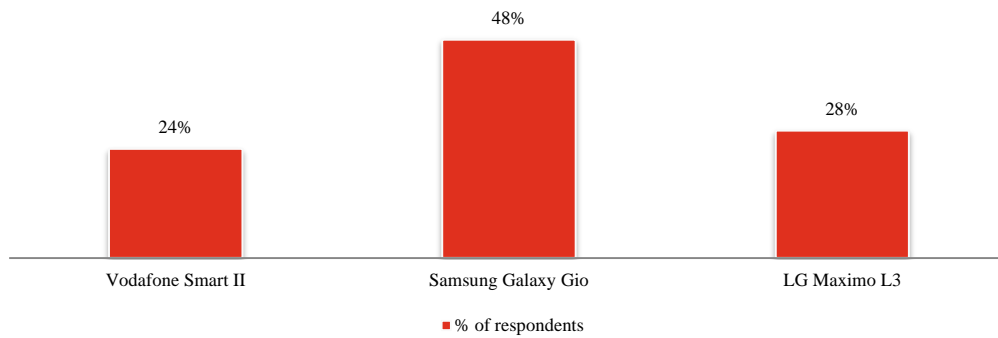
The above question enabled more than one answer by respondent



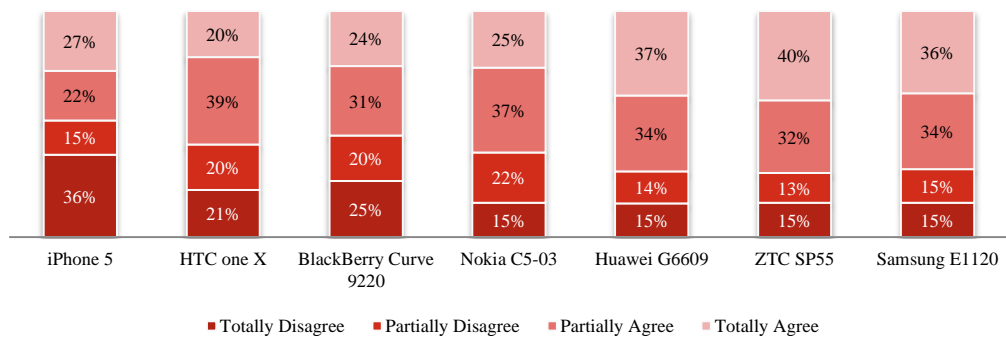
When asked if they would buy an own-brand device if it had a good price-quality relationship (by type of phone)



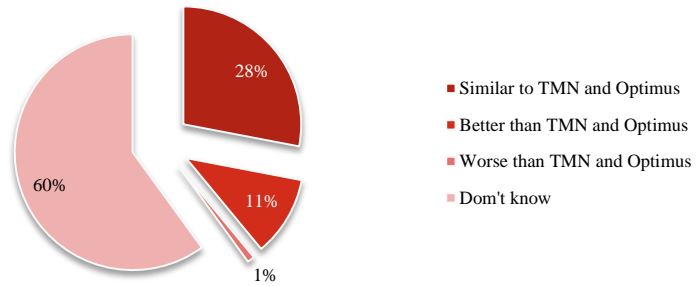
Which mobile phone would buy if not locked to any operator?



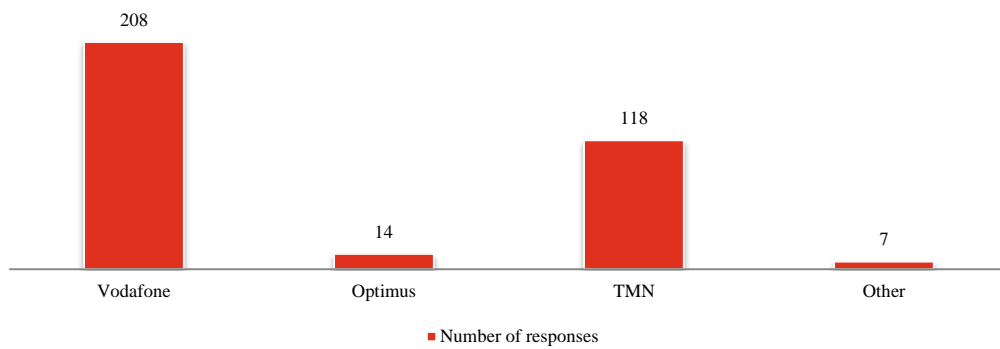
For each mobile phone presented, would the respondent buy an own brand device, with the same characteristics but 10% cheaper



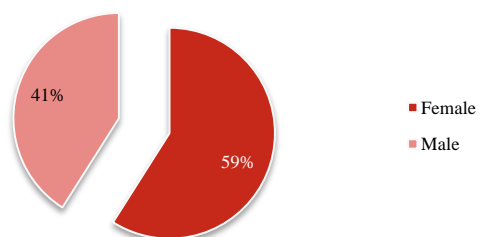
In price-quality terms, Vodafone own-brand devices are:

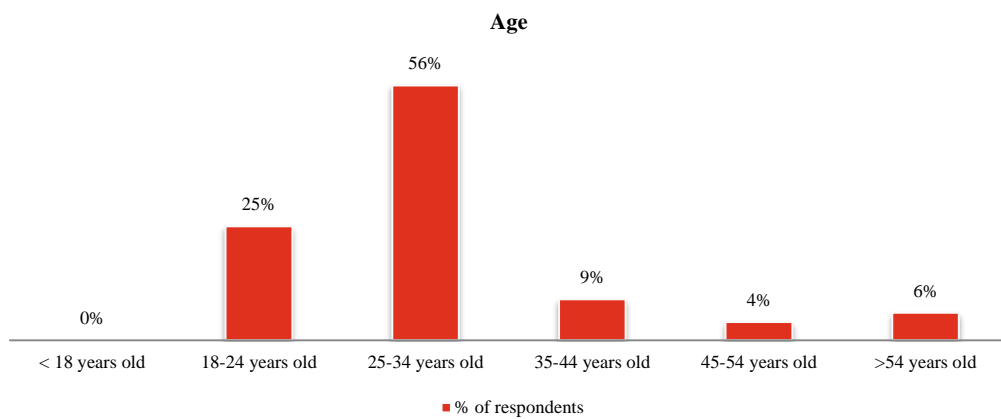


Operator



Gender





7. Teaching notes

Vodafone case study was designed in order to enable students to think critically about the mobile phone market, PL strategies and the consumer buying behavior. Below are some suggested assignment questions and possible topics for answers. They do not represent an exhaustive solution of the each question. Additionally, one open question is proposed – question number 4. To solve it, it is suggested to divide the class in groups of 4 elements each.

1. What are the key goals behind Vodafone Portugal own-brand program? (closed question)

Possible topics for answer:

- a. *Meet Vodafone Group goals regarding handsets portfolio.*
- b. *Foster bargaining power against NBs manufactures, lowering NB prices and negotiating NBs exclusivity contracts.*
- c. *Differentiate Vodafone offer from competitors. Differentiation factor is becoming increasingly harder to maintain since nowadays NBs are more reluctant to give exclusivity contracts and mobile phones are becoming more and more lookalike.*
- d. *Leverage Vodafone's ARPU. Vodafone Portugal portfolio is aligned with the group strategy of boosting data services usage. Vodafone is betting in the introduction of affordable own-brand smartphones and features phones, namely Vodafone Smart - a good value for money smartphone and the most affordable in its class -, in order to democratize smartphones, increasing their penetration, and to boost data usage.*

2. What are they drivers for Vodafone own-brand handsets program success? (closed question)

Students should be able to identify the following aspects:

a. *Opportunities:*

- *Favorable international and national context to PL proliferation. Increase in PL market share in Europe and in Portugal. Economic crises. Consumers more price-conscious.*

b. *Threats*

- *Highly competitive market. Dominated by few companies with strong brands. Stronger brands assure confidence to consumers. High involvement purchases implicate higher levels of confidence.*
- *Highly technological and very innovative market, therefore there might be higher quality variability (at least at consumers' eyes).*

c. *Strengths*

- *The program leverages on Vodafone Group expertise and resources - one of the world's largest mobile communications companies by revenue.*
- *Strong and valuable brand. Mobile phones are named under one of the most valuable telecoms brand in the world with an attributed worth of US\$30 billion (Brand Finance).*
- *Value for money mobile phones. Entry-prices. In general they are the best offer in-class in the portfolio.*
- *Introduction of own-brand smartphones.*

d. *Weakness*

- *PLs have been historically followers, not innovators. Their concept is to offer products that already exist with the same quality level at a lower price.*
- *Consumers do not consider own-brand handsets as good as other strong brands.*

3. What are the main drivers influencing consumers purchase decision? Is Vodafone strategy aligned with it? (Close question)

Possible topics for answer:

- Mobile phone market is very competitive and is one of the most dynamics worldwide. Technology is always being push forward and trends are always changing and consequently key purchase drivers are also changing.*
- Currently, smartphones, social network and internet are the ultimate trends in the market. The most advance phones in the market – smartphones - offer an entertainment experience to the customer that differ them from the others mobile phones in the market.*
- Factors influencing consumers purchase decision vary from customer to customer. Some customers want mobile phones just to text and call and are not interested in the latest development in technology, other see mobile phones as an extension of their personality and want the last model with the latest technology. Their purchase has high-involvement level.*
- There is not a consensus on the most important factors to purchase a mobile phone. Nonetheless, price, brand, features available, OS, ease to use, design and payment conditions are commonly factors stated by consumers to influence their purchase.*
- Vodafone portfolio strategy is focused in attracting and retaining customers, in differentiating the company and in increasing its ARPU.*
- The company has a wide range of handset portfolio that covers different customer segments, price points and an increasing variety of designs and OS. Following the current trends the company is focused on enabling “an online experience for everyone, everywhere”.*
- Vodafone is recognized as having the best portfolio of equipment at the best prices (Barómetro telecomunicações – Marktest – Agosto 2012).*

4. What should be Vodafone's strategy for the following years regarding its own-brand handsets?
(open question)

Some hints for the discussion:

- a. Push forward its store brand share as a percentage of its sales? What should be the equilibrium between PL and NB? What are the consequences for Vodafone, its clients and OEM manufacturers?*
- b. Introduce own-brand handsets in high-tier gammas? Concentrate its own-brand handsets only in low-end handsets?*
- c. Invest on stronger communication plans for its own-brand handsets? What should be the message(s) behind the communication?*
- d. How could the company own-brand strategy benefit from the actual economic environment?*

8. Appendixes

Appendix 1 - Online Survey Template

Este questionário, incluindo os dados através dele obtidos, são para uso exclusivo de uma tese de mestrado da Católica Lisbon School of Business and Economics, sendo de natureza estritamente confidencial e não vinculados a qualquer empresa nele mencionada. Este questionário não deverá demorar mais do que 5 minutos, sendo todas as questões de resposta rápida e obrigatória.

1. Que tipo de telemóvel possui actualmente? Caso tenha mais do que um telemóvel, seleccione mais do que uma opção.

- ☐ Smartphone
- ☐ Feature Phone (telemóvel com acesso à internet mas com menos funcionalidades que um smartphone)
- ☐ Telemóvel básico (para chamadas e sms)

2. Quanto custou o seu telemóvel? Caso tenha mais do que um telemóvel, seleccione mais do que uma opção.

- ☐ < €25
- ☐ Entre €25 e €70
- ☐ Entre €70 e €100
- ☐ Entre €100 a €150
- ☐ Entre €150 e €250
- ☐ > €250

3. Qual a marca do seu telemóvel? Caso tenha mais do que um telemóvel, seleccione mais do que uma opção.

- ☐ Samsung
- ☐ Nokia
- ☐ LG
- ☐ HTC
- ☐ Sony Ericsson/Sony
- ☐ BlackBerry®
- ☐ Huawei
- ☐ Apple
- ☐ Vodafone
- ☐ TMN
- ☐ Optimus
- ☐ ZTC
- ☐ Alcatel
- ☐ Outra

4. Quais os critérios que utiliza para escolher o seu telemóvel?

- ☐ Facilidade de uso/intuitivo
- ☐ Preço
- ☐ Marca
- ☐ Durabilidade
- ☐ Sistema operativo
- ☐ Design
- ☐ Acesso às redes sociais e chats
- ☐ Tendências tecnológicas
- ☐ Feedback/comentários positivos
- ☐ Conjunto de funcionalidades do telemóvel (*e.g.* câmara, memória, processador, etc.)

5. Classifique como se sente em relação às seguintes frases.

	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
Os telemóveis de marca própria (Vodafone, TMN e Optimus) são tão bons como os de grandes marcas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utilizo o telemóvel apenas para fazer chamadas e mandar mensagens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pago pela qualidade do produto e o que o mesmo pode fazer e não pela marca e pelas tendências	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gosto de tecnologia, mas não estou disposto a pagar mais por ela	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estou interessado nos últimos desenvolvimentos tecnológicos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Como caracteriza os telefones de marca própria, ou seja, da marca do operador (Vodafone, TMN e Optimus)?

	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
Boa relação qualidade-preço	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback/comentários positivos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Simples de usar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visionários	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Design</i> apelativo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boa qualidade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duráveis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baratos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Compraria um telemóvel de marca própria se soubesse que tinha uma boa relação qualidade-preço?

	Dicordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
Smartphone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feature Phone (telemóvel com acesso à internet mas com menos funcionalidades que um smartphone)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telemóvel básico	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Qual dos telemóveis constantes na imagem abaixo compraria se nenhum estivesse bloqueado a um operador?



	Vodafone Smart II	Samsung Galaxy Gio	LG Maximo L3
Preço	99,90	109,90	119,90
Tecnologia	3,5G	3,5G	3,5G
Sistema operativo	Android 2.3	Android 2.2	Android 2.3
Ecrã	3.2"	3.0"	3.2"
Processador	832 MHz	800 MHz	1 GB
Memória/Suporte para cartão	150 MB	180 MB	1 GB
Wi-Fi/GPS	Sim/Sim	Sim/Sim	Sim/Sim
Camara	3.2 Megapixel	3.0 Megapixel	3.0 Megapixel
Ofertas:	Cabo de dados, auricular stereo e cartão de memória 2GB	Auricular stereo e cartão de memória 2GB	Cabo de dados

- ☐ Vodafone Smart II
- ☐ Samsung Galaxy Gio
- ☐ LG Maximo L3

9. Para cada um dos telemóveis constantes na imagem abaixo, se estivesse disponível um telemóvel da marca do seu operador, com características iguais, mas com um preço 10% mais inferior, escolheria o da marca do seu operador?



	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
iPhone 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HTC one X	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BlackBerry® Curve™ 9220	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nokia C5-03	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Huawei G6609	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ZTC SP55	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samsung E1120	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. É cliente de que operadora(s)?

- ☐ Vodafone
- ☐ Optimus
- ☐ TMN
- ☐ Outra

11. Para si, em termos de relação qualidade-preço os telemóveis de marca própria da Vodafone são:

- ☐ Semelhantes ao da TMN e Optimus
- ☐ Melhores do que os da TMN e Optimus
- ☐ Piores do que os da TMN e Optimus
- ☐ Não sei

12. Sexo

- ☐ Feminino
- ☐ Masculino

13. Idade

- ☐ <18 anos
- ☐ 18-24 anos
- ☐ 25-34 anos
- ☐ 35-44 anos
- ☐ 45-54 anos
- ☐ >54 anos

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10. Glossary

A.

ANACOM – Autoridade Nacional de Comunicações

ARPU - Average Revenue per User

C.

CAGR – Compound Annual Growth Rate

D.

DIY – Do it Yourself

F.

Feature phone - Typically a low-end mobile device with less features than a smartphone, but more than a traditional (or basic) mobile phone.

FMCG – Fast Moving Consumer Goods

FY – Fiscal Year

M.

MBB – Mobile Broadband

N.

NB – National Brands

O.

OEM – Original Equipment Manufacturer

ODM – Original Design Manufacturer - a company that designs and manufactures a mobile device that is specified and sold by another company (i.e. a white label product)

OS – Operating System

P.

PL - Private Label

S.

Smartphone - Typically a high-end mobile device with more advanced computing ability and connectivity compared to a feature phone

Y.

YTD – Year To Date

T.

TTM – Time To Market